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a status report

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Volume 1

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Massachusetts Department of Public Health

a KIDS COUNT sourcebook

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massachusetts children & youth

a status report volume 1

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Acknowledgements

This document represents the most comprehensive compendium of data ever compiled by the Massachusetts Department of Public Health on the status of Massachusetts children and families. The document is being issued in two volumes. Volume 1 includes data reflecting statewide and national trends. Volume 2 will contain a subset of the data indicators for all 351 cities and towns and aggregated by the 27 Community Health Network Areas delineated by the Department of Public Health as well.

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This publication describes the status of children and their families in Massachusetts, both currently and over time, by examining six major dimensions of their lives:

1. population demographics, trends and living arrangements;
2. economic and employment circumstances of both children and their parents;
3. prenatal, birth and infant characteristics both for all women giving birth and for women under the age of 20;
4. child and adolescent behaviors and health status, specifically child morbidity, high risk behaviors, and child mortality;
5. education; and
6. selected social supports for both children and their families.

From these data, two major themes emerge. First, there are substantial variations by race/ethnicity that extend across a broad range of characteristics and contexts. For most of the indicators presented, minorities are significantly disadvantaged relative to white non-Hispanics. This does not belie the fact that, because the population of Massachusetts is predominantly white, the majority of adverse outcomes are experienced by white non-Hispanic children and their families. Second, many of the adverse outcomes that occur to Massachusetts children are preventable through the application of primary prevention strategies.

Part 1 - Demographics of Children and Families

Population dynamics and living arrangements affect the ability of children to live, learn, and grow in a healthy and productive environment. Part One presents trends in population and living arrangement characteristics derived primarily from federal 1990 Census data.

- ***Massachusetts Children***

In 1990, there were approximately 1,361,021 children under age 18 living in Massachusetts. The child population has been steadily declining over time, both in absolute terms and as a percentage of the state's entire population. In 1970, children under 18 made up 33.0% of the state's population; in 1990 they accounted for 22.6%; by comparison, 25.6 % of the population nationally was under 18. At the same time, the share of Massachusetts children of color has grown steadily, from 2.9 % in 1960 to 4.6% in 1970, reaching an all time high of 11.1% in 1990, compared to 24.9% nationally.

More than one in three Hispanic residents, and almost one in three black and Asian residents were under the age of 18, while only a little more than one in five white residents were under 18 years old. Among children under 20 years of age, the percentage of children of color was lowest among those 18-19 years old (16.0%) and highest among infants under one year old (19.6%). These data suggest that the trend toward increasing

racial and ethnicity diversity among Massachusetts children will continue into the next century.

- ***Living Arrangements of Massachusetts Children***

The number of children living in one-parent families has increased by 48% since 1970: from 192,099 children in 1970 to 284,091 in 1990. In 1970, one in ten children lived in one-parent families. In 1990, the proportion was more than one in five (21%) and this trend is expected to continue. This figure was very close to the national figure of 20.2%. A majority (88%) of these children lived in households headed by a female with no husband present. Almost three quarters of all women raising children without a husband present were white; this constituted 18% of all white families. More than one in two black families and almost one in two Hispanic families were headed by a female with no husband present. Asian families were the least likely of any group to be headed by a single mother (14%).

The share of Massachusetts children living with neither parent (3.1%) is lower than that of the nation (4.3%), but has rapidly increased, having risen from 1.3% in 1970. In 1990, 17,884 more children were not living with either parent than in 1970 (41,923 vs. 24,039). In 1992, approximately 1% of all Massachusetts children under age 18 were in Massachusetts Department of Social Services substitute care; more than half of the placements were in foster homes.

In 1990, 15% of all Massachusetts children were living in households where English was not spoken in the home, and almost one in five children statewide lived in rural areas.

Part 2 - Economic Indicators for Children and Families

Part Two focuses on economic factors that affect the lives of children and their families. The data illustrate a correlation between family economic status and living arrangements for children and their parents.

- ***Economic Disparities***

Nationwide, almost 18% of children were living in poverty in 1989. In Massachusetts, 13.6% of all children (181,506) were living in poverty. The majority (73%) of all Massachusetts children living in poverty were white. Eleven percent of all white children, 38% of all black children and almost 50% of all Hispanic children were poor. Both Asian and Hispanic children in Massachusetts were markedly poorer than their counterparts nationally. More than one in four children lived at or below 200% of the federal poverty level ($25,350 annual income for a family of four in 1989).

- ***Parents in the Labor Force***

In 1990, 90% of all Massachusetts children had a parent in the labor force. Since 1988, the unemployment rate went from 3.3% in 1988 to a peak of 9.0% in 1990, then declined to 6.9% in 1993. Although the majority of Massachusetts children lived with parents who were in the labor force, one in ten children under age 18 lived either with two parents or with one parent without a spouse present who were not in the labor force. Most (82%) of the 136,397 children who did not have a parent in the labor force were living with a female without a husband present. More than 19,000 children lived with two parents, neither of whom was in the labor force.

- ***Mothers in the Labor Force***

In 1990, half of all Massachusetts children under 18 years old were living with two parents who were both in the labor force. This percent is slightly lower (45%) among preschool children (ages 0-5). The number of women who have preschool children and are in the labor force has more than doubled since 1970, reaching approximately 60% in 1990. The number of women in the labor force whose youngest child is between the ages of 6 and 17 has also increased (by 37%) during the same time period, and these women represent almost four in five women with their youngest 6-17 years old.

- ***Adolescents in School and in the Labor Force***

In 1990, 95% of Massachusetts adolescents 16-19 years old were either in school or employed. Of the 16,676 teens who were neither in school nor in the labor force, eighty percent were white. While black adolescents made up 6.4% of all Massachusetts adolescents ages 16-19, they were 16.6% of all adolescents not in school and not in the labor force. Hispanic adolescents constituted 6.6% of the population and 27.6% of those not in school and not in the labor force. Asian adolescents were 3.3% of the population and 2.6% of those not in school and not in the labor force.

Part 3 - Prenatal, Birth, and Infant Characteristics

The grounds for childhood well-being are laid in the prenatal period. A woman's health, behavior and access to prenatal care as well as perinatal medical technology all affect the well-being of her newborn. Over 1.7 million infants were born to Massachusetts residents between 1970 and 1991: the vast majority of them had a healthy start. However, some children encountered risks for poor health in their infancy. Using data compiled from Massachusetts vital records, Part Three examines indicators of risk in the prenatal period (prenatal care adequacy and economic status) and indicators of adverse birth outcomes (low birthweight, prematurity, and infant mortality). Data are presented that compare characteristics of all infants with infants born to women less than 20 years old.

■ *Birth Trends*

From 1970 to 1975 births declined 27.2 %, falling from 93,587 to 68,070. From 1975 to 1990 births increased each year, reaching a high of 92,461 in 1990, an increase of 35.8%. In 1991, 59.5 infants were born for every 1,000 Massachusetts resident women aged 15-44; 33.4 infants were born for every 1,000 resident women aged 15-19. The number of births among teens declined 31.6% from 1970 to 1991. Among young teen mothers (< 18 years old), the decline was 9.8%.

■ *Prenatal Care*

"Prenatal care" describes the pregnancy-related health services a woman receives between the conception and delivery of her child. The purpose of prenatal care is to prevent poor medical outcomes for mother and infant and to foster the parent-newborn-family relationships. Prenatal care adequacy is defined according to the month of pregnancy in which care began and the number of prenatal care visits that were made prior to delivery. For prenatal care to be considered adequate, the first visit must occur during the first trimester of pregnancy and at least 9 visits must be made prior to delivery. Throughout the last decade in Massachusetts, most Massachusetts infants had mothers who received care in their first trimester of pregnancy. While the percent of women receiving first trimester prenatal care declined from 1980 to 1991(from 88.9% to 85.8%), since 1988 first trimester registration has increased from about 82.0% to 85.8%.

There is disparity in adequacy of prenatal care by maternal age: while about 83.4% of women over age 20 received adequate care, only about 60% of adolescent mothers received this level of care. There is also variation in adequacy by maternal race/ethnicity. In 1991, while overall 81.6% of all women had adequate prenatal care and 15.2% received intermediate care, 3.2% of all women received inadequate or no prenatal care. 61.8% of black non-Hispanic women received adequate prenatal care while 10% of black non-Hispanic women received inadequate prenatal care.

■ *Birth Outcomes*

Women who are young (less than 20 years old), poorly educated (less than high school education), and/or unmarried may lack the financial resources to provide for themselves during pregnancy and for their children after birth. Infants born to women with these characteristics may be considered at risk of poor health outcomes. In Massachusetts, the percentage of infants born to women less than 20 years old has declined slightly since 1970. In 1991, 8.0% of all births were to teenage women and among teen births nearly 40% were to women under the age of 18. Teen births vary by race/ethnicity: almost 21% of births to Hispanic women were to teens as were nearly 16% of black non-Hispanic births. 5.9% of Asian women and 5.6% of white non-Hispanic women giving birth were teens.

The majority of women age 19 and over who gave birth in 1991 had at least a high school education, but 10,568 infants had adult mothers who had not graduated from high school. The percentage of unmarried women giving birth has risen steadily since 1970, increasing from 7.2% in 1970 to 25.9% in 1991, an increase of 360%. Most of the growth in the number of births to unmarried women is attributable to women 20 years old and older. The percentage of births to unmarried teens has grown more slowly than the percentage of births to unmarried women 20 years old and older.

Risk may also be assessed by examining the volume of publicly funded prenatal care. In 1991, 27.2% of all women who gave birth had their prenatal care paid for by public funds, such as Medicaid and Healthy Start. The majority (72.5%) of women less than 20 years old who gave birth in 1991 had publicly funded prenatal care.

- ***Adverse Birth Outcomes***

Low birthweight, prematurity, and infant mortality are traditional measures of public health and are widely used to describe the health of communities. Low birthweight and prematurity are associated with inadequate prenatal care and smoking during pregnancy and infant mortality is strongly associated with prematurity and low birthweight. It should be noted that adverse birth outcomes can encompass a broad range of severity, from moderately premature or low birthweight infants who sustain no lasting delay or ill effects to infants who die before their first birthday.

Low birthweight is defined as less than 2,500 grams (5.5 pounds). Infants with low birthweight are at increased risk of suffering severe physical and developmental complications as well as a higher risk of mortality. Low birthweight percentages in Massachusetts have remained remarkably constant since 1980, varying only from 5.6% to 6.1%. However, there is notable variation by race/ethnicity: 11.6% of all black non-Hispanic infants have low birthweight compared with 5.2% of all white non-Hispanics, 7.3% of all Hispanics and 6.0% of all Asians. Low birthweight also varies by maternal age; low birthweight among infants of teen mothers is 40% more common than among infants of mothers of all ages. However, both Massachusetts teens and women of all ages had consistently lower percentages of low birthweight infants than their national counterparts did.

A premature birth is one that occurs before the completion of 37 weeks gestation. Premature infants are at risk for low birthweight, respiratory distress, and other conditions. Prematurity varies by maternal age; in 1991, 8.9% of all births to teen mothers were premature compared to 6.6% of all births to women age 20 or over. Prematurity also varies by race/ethnicity; in 1991, black non-Hispanics had more than twice the incidence of prematurity than white non-Hispanics, and Hispanics had 43% more prematurity than did white non-Hispanics.

In addition to being risk factors for infant mortality, low birthweight and prematurity are both important adverse outcomes in themselves, associated with elevated prevalence of developmental delay and other long term health effects.

In 1991, the Massachusetts infant mortality rate was 37% lower than the national infant mortality rate (6.5 vs. 8.9 deaths per 1,000 live births); the Massachusetts rate had declined 37% since 1980. Infant mortality rates among white non-Hispanics, black non-Hispanics and Hispanics were also lower in Massachusetts than in the nation. But, the infant mortality rate among black non-Hispanic infants in Massachusetts was almost three times as high as the rate among white non-Hispanic infants: 15.0 deaths vs. 5.5 deaths, respectively.

Part 4 - Child and Adolescent Health Status and Behavior

Many determinants of well-being during childhood and adolescence are linked to the prevention of illness and injury and the promotion of a healthy lifestyle. Access to health care and a nurturing environment are necessary supports for development. Part Four considers the state of child and adolescent well-being by examining several health and behavior measures. Three subsections deal with the general categories of morbidity, mortality, and behavior and health risks. While these sections encompass a broad spectrum of indicators they share an important theme: many of the conditions and outcomes are preventable.

- *Preventive Care*

Among young children, universal screening programs and immunizations are two cornerstones of preventive care. In Massachusetts, all newborns are screened for nine disorders. Early treatment of these disorders can prevent mental retardation, blindness, and other disabilities. Young children are also especially at risk from the toxic effects of lead in the environment. Elevated levels of lead in the blood (lead poisoning) may result in irreversible cognitive defects. Massachusetts public health regulations have established a schedule for periodic screenings of preschool children, and evidence of lead screening is a requirement for entry into kindergarten. Since 1990, when universal lead screening of children nine months to four years old became mandatory, the number of children screened has increased each year. In 1992 about two-thirds of all eligible children were tested, yielding a lead poisoning incidence rate of 2.5 cases per 1,000 children tested. This was the lowest level in the last four years and a decline of 28.6% from the 1989 rate of 3.5 cases per 1,000 tested.

Immunization programs have been successful in reducing cases of illness from infectious diseases such as polio, measles, mumps, rubella, pertussis, and *Haemophilus influenzae*. All Massachusetts children are required to have completed age-appropriate immunizations before entering day care, nursery school and kindergarten. Among day care sites responding to an immunization survey, 98-99% of children were reported immunized with DTP, polio and MMR vaccines while just over 96% were immunized with Hib vaccine. By kindergarten, these percentages decline fractionally (Hib vaccine is not administered to kindergartners). Currently, efforts are underway to ensure that all children receive age-appropriate immunizations before their second birthday.

- ***Unintentional and Intentional Injuries***

Injuries are a significant problem among children 0-14 years old. From 1988 to 1990, there were an average of 5,119 nonfatal acute care hospital discharges annually of children under age 15 resulting from injuries, with falls the most common reason (29.9%), followed by motor vehicle crashes (15.8%) and poisoning (11.8%). Among older children and young adults (15-24 years old), there were 7,961 nonfatal acute care hospital discharges annually in the same period as a result of injuries. The most frequent cause in this age group was motor vehicle related injuries (35.5%), followed by falls (11.3%) and poisoning (10.7%). Suspected and confirmed poisonings are another preventable injury. Children under age 20 accounted for 80.3% of all calls (40,627 classified by age) to the Massachusetts Poison Control Center in 1991. Children under four years old accounted for 79.9% of those calls.

- ***Maltreatment of Children***

In the past decade, both initial reports and supported cases of child maltreatment have increased in Massachusetts. Maltreatment of children includes neglect, physical abuse, sexual abuse, and emotional maltreatment. In 1992, of 89,592 reported cases of possible child maltreatment(representing 61,412 individual children), the Massachusetts Department of Social Services (DSS) investigated about 48,000 cases. Of these, 24,601 allegations were supported(confirmed abuse), about 4,000 fewer than two years earlier. Neglect was the most common form of maltreatment (62% of all cases), followed by physical abuse (22.2%), sexual abuse (8.3%) and emotional maltreatment (7.4%). Over 56% of the investigated cases supported by DSS were white non-Hispanic children, almost 18% were black non-Hispanic and nearly 16% were Hispanic. The remaining 10% were Asian or other races/ethnicities.

- ***Chronic and Serious Illnesses***

Although patient education and appropriate drug use can keep many children with asthma out of emergency rooms and hospitals, asthma was the primary diagnosis for over 10% of hospital discharges among Massachusetts resident children under age 20 in 1991.

The average annual rate of new cancer cases among children under age 20 in Massachusetts is 15.1 per 100,000 children. Between 1982 and 1990, over 2,000 cases of cancer were diagnosed in children. Although there is variation in the severity and outcomes of different cancers, these children all had a part of their childhood occupied by medical concerns.

HIV disease, which includes the spectrum of disease from seropositivity (exposure to the human immunodeficiency virus) to full-blown Acquired Immune Deficiency Syndrome (AIDS), is a new serious illness affecting children and families. The majority of children with antibodies to HIV were exposed to the virus perinatally which means that, whether these children ultimately develop HIV disease or not, their mothers are

infected. By January, 1994, there were 796 reported cases of HIV seropositive children under age 18. There were 167 cumulative cases of AIDS, 89 of whom had died.

- *Child Mortality*

The death of a child is a tragedy for the family and the community at large. This section of Part 4 presents data on child and adolescent mortality in terms of absolute numbers of deaths, the leading causes of death, injuries (intentional and unintentional), and homicide and suicide. Most deaths among children and adolescents are preventable tragedies, especially those attributable to injury and violent death. Over 56% of child deaths in the period 1989-1991 were attributed to unintentional injuries, homicide, and suicide.

The number of deaths among children aged 19 and under declined almost 30% from 1980 to 1991. There was a decline in each age group (<1, 1-4, 5-9, 10-14, 15-19) with the largest decline among 15-19 year olds (44.8%). The decline in the absolute number of deaths from 1990 to 1991 was the second largest annual decline since 1980.

In Massachusetts during the 1980s, injury-related deaths accounted for 60% of deaths among children aged one to nineteen years. From 1989 to 1991, unintentional injury was the leading cause of death among four age groups (1-4, 5-9, 10-14, 15-19), accounting for 39.4% of all childhood deaths and almost half (46.8%) of all deaths among 15-19 year olds, from 1989-1991. The next leading cause of death was homicide, accounting for 10.8% of all childhood deaths, followed by malignant neoplasms, 9.7%. By adolescence, all of the three leading causes of death were related to injuries or violence. Among 15-19 year olds, injuries and violence accounted for 74.2% of all deaths for the years 1989-1991. There is also cause for concern in the emergence of AIDS as the tenth leading cause of death among children 1-5 years old.

- *Violent Deaths*

From 1989 through 1991, there were 160 homicide and 81 suicide deaths among children 0-19 years old. Of these violent deaths, almost one in five (18.3%) was of a child 0-14 years old. Homicide was the seventh leading cause of death among children ages 5-9, the third leading cause among 10-14 year olds, and the second leading cause for 15-19 year olds. Suicide was tied for the sixth leading cause of death among children 10-14 and was the third leading cause among those 15-19.

Examining adolescent (15-19) homicide and suicide deaths by race/ethnicity shows that over half (52.8%) of all homicide deaths in this age group were among black non-Hispanics. There were 125 firearm deaths among Massachusetts children aged 10-19 from 1989-1991. Of these, half occurred to black non-Hispanics. Of 72 known suicides among 15-19 year olds in the period 1989-1991, 66 were among white non-Hispanic adolescents.

Behavior and Health Risks

- ***Risk Behaviors***

Behavior plays a major role in determining health status. Children's long-term well-being is affected by their own behavior choices as well as by their family's behavior and circumstances.

Tobacco, alcohol, and illicit drug use can cause both physical and emotional health problems. Tobacco use contributes heavily to premature mortality from cardiovascular disease, cancer, cerebrovascular disease and chronic obstructive pulmonary disease. Individuals who begin smoking at an early age are at the highest risk of becoming regular, heavy smokers and at the highest risk for smoking-related illness. Use of alcohol and other drugs may result in intoxication which both jeopardizes physical health and may result in additional unhealthy actions such as driving while intoxicated, fighting and other actions that bring youths into conflict with family, friends, schools, and the law.

According to the 1992 Youth Risk Behavioral Survey (YRBS) conducted periodically by the Department of Education, 27% of high school students were smoking or had smoked regularly. By 12th grade, 43% of female students had smoked regularly, compared to 31% of male students. Almost 70% of students had tried smoking at least once in their lifetime. Over 80% of students responding to the 1992 YRBS reported using alcohol for nonreligious purposes at least once in their lives. Alcohol use increased with grade, with 70% of 12th graders having had at least one drink in the past 30 days and 52% having five or more drinks in the 30 days prior to the survey. Although alcohol and tobacco were the most commonly used drugs, 36% of 1992 YRBS respondents reported ever using marijuana and 14% reported having used other drugs such as LSD, PCP, ecstasy, mushrooms, speed, ice, and heroin.

Adolescents are at high risk for acquiring sexually transmitted diseases (STDs), including syphilis, gonorrhea, and chlamydia. National statistics show that the majority of all reported cases of STDs occur among people ages 15-29 years old. Young women with untreated chlamydia and gonorrhea infections are at particular risk for pelvic inflammatory disease and subsequent ectopic pregnancy, infertility or both. The combined rate of infection with syphilis, gonorrhea, and chlamydia was 850.5 per 100,000 adolescents 15-19 years old, a decline of 21.5% from 1991. Far more young women in Massachusetts are diagnosed with STDs than young men, which may reflect the more symptomatic nature of some STDs in women. In Massachusetts, over 3,800 cases of chlamydia, gonorrhea and syphilis were reported among residents age 19 or younger in 1992.

- ***Juvenile Justice***

In 1992, Massachusetts District Courts recorded over 30,000 charges against over 15,000 juveniles for criminal offenses. Slightly more than 3,000 CHINS cases were initiated and over 1,000 Care and Protection cases were received. In FY 1992, the four

Juvenile Court divisions, located in the cities of Boston, Springfield and Worcester and in Bristol County, recorded over 9,000 delinquency cases, over 2,000 CHINS cases, and represented 2,041 children in Care and Protection proceedings. A breakdown of District Court Juvenile offenses revealed that property crimes accounted for over 30% of juvenile charges, assaults for nearly a fifth of charges (19.4%), and narcotics charges 4.6%.

Data on arrests and apprehensions compiled from local police departments by the Massachusetts State Police in 1991 revealed 30.3% crimes against property, 16.9% drug and alcohol related crimes, and 1,733 (9.6%) crimes against persons. By race, the juveniles taken into police custody for these offense were over 70% white, just over 25% black, and 1.1% Asian.

In 1993, 939 youth were newly committed to the Massachusetts Department of Youth Services (DYS). This number was the highest in a decade, and a 6.8% increase over 1992. Almost half of the commitments of white non-Hispanic youths were for property offenses. Over 43% of the commitments of black non-Hispanic youths were for crimes against a person. Among Hispanic youths, 40.4% of commitments were for crimes against a person.

Part 5 - Education

Children and adolescents ages 3-21 constitute the "school-age" population. The school environment affects a child's overall well-being, both while the child is in school and in preparing him/her for adulthood. In turn, characteristics a child brings to school affect how the child functions in an educational setting.

Part Five contains information compiled by the Massachusetts Department of Education and examines trends in school enrollment, the current incidence of school dropouts and grade retention, current proficiency levels, and trends in career plans of students upon high school graduation. This section also details students with special needs, including students for whom English is not their first language and students receiving special education services.

- ***Public, Private and Parochial School Enrollments***

From 1980 to 1988 public school enrollment declined 17.6%. There has been a slight rise in enrollment since 1988 (4.4%) but there are about 140,000 fewer children enrolled in 1992 than were enrolled in 1980. Of those children enrolled in public school in 1992, more than half were in prekindergarten through fifth grade, while 21.8% were in grades 6, 7, and 8, and 26.7% in grades 9-12. Private and parochial school enrollment peaked in 1984 at nearly 150,000 students, declined from 1984 to 1990, and grew slightly from 1990 to 1992.

Changes in public school enrollment over time have not been uniform across grades. In fact, there were gains in enrollment for grades 3 and under, while enrollment declined for all grades 4 through 12. The largest declines were in grades 11 and 12

(35.7% and 34.2%, respectively) while the largest proportional growth was in pre-kindergarten. Eighty percent of public school students are white, non-Hispanic.

- ***Educational Outcomes***

Dropouts are currently defined as students who leave school prior to graduation for reasons other than transfer to another school. During the 1991-1992 school year, 9,282 students enrolled in grades nine through twelve dropped out of school. Since 1988, the percentage of dropouts has fallen from 5.4% to 4.0%, a decline of 25.9%. Slightly more males than females dropped out, 4.5% vs. 3.5% in 1992. The projected four-year dropout percentage for 9th graders in the 1991-1992 school year was 15%. It varies significantly by race/ethnicity: the dropout projection for Hispanics is 36%; for black non-Hispanics 26%; for Native Americans, 18%; for Asians, 16%; and for white non-Hispanics, 12%.

- ***Academic Proficiency***

The percentage of Massachusetts students recommended for grade retention falls at the low end of the national range, 3.5% in 1989-1990 and 2.1% in 1991-1992 compared to the national range of 2-8%. The largest percent retained, 4.1%, were in the highest grade levels (grades 9-12). There was substantial variation by race/ethnicity; 5.2% of black non-Hispanics and 5.1% of Hispanics were retained; 2.2% of Asian students and 1.5% of white students were retained. Over 10% of Native American students were retained in their grades. Boys were held back more often than girls.

According to the 1992 Massachusetts Education Assessment Program, over 40% of 155,663 students tested had not mastered the basic components of grade-appropriate curriculum. Standardized tests are administered to grades 4, 8, and 12. The results were grouped into five levels of competency ranging from lowest to highest (below Level 1, Level 1, Level 2, Level 3, Level 4). The percent at or below Level 1 increased by grade, from 42% in grade 4 to 46% in grade 12. Grade 12 had the highest percentage of students at the lowest and the highest levels of proficiency.

- ***Children Who Speak English as a Second Language***

In the 1992-1993 school year, nearly 100,000 public school students (slightly more than ten percent) spoke English as a second language. As a first language, 50.9% of these students spoke Spanish, 13.0% spoke Portuguese, 10.7% spoke a Southeast Asian language (Khmer, Vietnamese or Laotian), 6.0% spoke a Chinese dialect and the remaining 19.4% spoke one of 93 other languages. A substantial proportion of these children could not perform classwork in English (43.9%).

- ***Special Education***

Massachusetts assures that residents ages 3-21 will receive special education appropriate to their needs. During the 1992-1993 school year, nearly 150,000 public school students (almost one in five) received special education services. Over half

(58.2%) spent no more than 25% of their school time receiving special services outside the classroom; 15.2% spent from 25-60% of their time outside of regular classes and 16.5% spent almost their entire week taught by a special teacher. Of the remaining 10.1%, 4.5% were in preschools, 5.6% in other special education programs.

Over half (52.4%) of Hispanic and nearly half (46.6%) of black non-Hispanic special education students were placed in programs that separated them from other students more than 25% of the week. Over a quarter (27.6%) of white non-Hispanic special education students were placed in these programs.

- ***School Suspensions***

School suspensions are a common form of discipline for a variety of infractions ranging from smoking to possessing a weapon. In the 1991-1992 school year, there were approximately 86,000 suspensions among Massachusetts public school students; 46.5% were in-school suspensions and 53.5% were out-of-school suspensions. Seventy percent of all suspensions were given to boys. Almost three quarters (73.8%) of suspensions were among white non-Hispanics students; 13.4% were among Hispanic students; 11.5% among black non-Hispanic students; 1.0% among Asian students and 0.2% among Native American students. Within race and ethnicity, Hispanic students had the highest suspension percentage (16.8%), followed by black non-Hispanics (15.0%), Native American students (12.6%), white non-Hispanic students (9.3%), and Asian students (3.1%).

- ***Per Pupil Expenditures***

During the 1991-1992 school year, public school educational expenditures in Massachusetts totaled over $4,250,000,000, an average of $4,858 per enrolled student. Over 70% of the total was spent on regular education programs, approximately 8% on special education services, 2.8% on bilingual programs, and 5.7% on occupational day programs.

Part 6 - Selected Support Services for Children and Families

Poverty and disease compromise the welfare of children and their families. An array of public and private human service programs respond to these problems. Part Six presents information on some of the public support programs available to Massachusetts children and families. The numbers of children and families involved in these programs only measure the services being delivered; unmet need is difficult to quantify accurately.

In 1993, roughly 15% of Massachusetts families with children received financial assistance through the Aid to Families with Dependent Children (AFDC) program. AFDC provides cash benefits to families with children that lack adequate means due to absent, deceased, incapacitated, or unemployed and underemployed parents. Almost 114,000 households (almost 320,000 Massachusetts residents) received assistance; the average

monthly grant was $513.69 per household. Between September 1992 and September 1993, the household caseload grew 2.7% while the number of recipients grew 2.2%.

Families and children also receive nutritional support through Food Stamps, WIC (the Special Supplemental Food Program for Women, Infants, and Children), and free and reduced-cost school lunch and breakfast programs.

In September 1993, over 190,000 Massachusetts households (over 444,000 individuals) received Food Stamp assistance. In January 1994, over half of all Food Stamp recipients were children under than 18 years old (223,406). Nearly half the children getting Food Stamps were white non-Hispanic, over a quarter were Hispanic, about 16% were black non-Hispanic, and about 5% were Asian and 0.2% were Native American.

The Special Supplemental Food Program for Women, Infants, and Children (WIC), administered by the Department of Public Health, provides supplemental foods and nutrition education to low- and moderate-income women, infants and children up to age 5 who are at nutritional risk. In December 1993 almost 123,000 Massachusetts women, infants, and children received WIC benefits, an increase of 15.9% over the caseload as of June 1992. Of these, 24,200 (19.7%) were pregnant or postpartum women, 28,064 (22.9%) were infants and 70,523 (57.4%) were children aged 1-5. Of the children in WIC, 45.1% (31,789) were white non-Hispanic, 28.4% (20,032) were Hispanic, 20% (14,226) were black non-Hispanic, 6.1% (4,336) were Asian and 0.2% (138) were Native American. Although whites constitute 81.7% of all Massachusetts children aged 1 to 5, over half of the WIC child participants were minorities; similar proportions held for infants.

Children with special health care needs benefit from treatment and services provided early in childhood. The Massachusetts Early Intervention Program (EI) administers and funds community-based developmental services to help children under three years old who are at risk of developmental delay to achieve their maximum potential. In FY 1993, slightly over 12,000 children with a wide variety of medical conditions and environmental risks for developmental problems were enrolled in EI. Of these, nearly half (48.1%) were new admissions to the program. Of the 11,239 EI enrollees with known race/ethnicity, 69.2% (7,774) were white non-Hispanic, 14.2% (1,595) were black non-Hispanic, 14.2% (1,602) were Hispanic, 2.4% (268) were Asian and the rest were of other races/ethnicities.

The Massachusetts Growth and Nutrition Program administers and funds services for children under the age of six who have been diagnosed with Failure to Thrive, a condition that can result in significant delays in physical and cognitive development. An average of 568 children participate each year; over one third of the children are black or Hispanic. Developmental support for children and their families is also provided through child care facilities and the Head Start Program.

Child care, including family child care sites, group child care sites and school-age child centers provide nurture and supervision. The availability of day care has become an increasingly important facet of the quality of life for children as increasing numbers of women enter the work force. In November 1993, the Office for Children had licensed a maximum of 168,766 child care slots. Over half (52.3%) were in group child care facilities, 36.4% were in provider's homes, and 11.3% were in school-age centers. Of the 88,276 group child care slots, 81.9% were available to preschool children, 9.7% were licensed for toddlers (15-33 months old), and 3.5% were specifically licensed for infants. The remaining 4.9% were allocated to mixed age and school-age children.

The Massachusetts Department of Social Service provides subsidies to low-income families for child care. For FY 1994, nearly 29,000 child care slots were subsidized by the Commonwealth. Over half of these slots were allocated to child care vouchers funded by the Department of Public Welfare. Almost a third of the subsidized slots were allocated to basic child care offered to low-income children. Almost 15% of subsidized slots were for Family Preservation child care which provides services to DSS-referred children in need of protection from abuse and neglect. Children with special care needs also qualify for these subsidized slots without income constraints.

The federally funded Head Start program provides early childhood development, education, health, nutrition and other services primarily to low income preschool children (ages 5 and under) and their families. About 98% of the annual enrollment (11,406 children in FY 1993) was ages 3 to 5. Enrollment has grown 21.7% since FY 1984. Looking at Head Start enrollment by race/ethnicity, 44.7% (5,094) of children were white non-Hispanic, 26.6% (3,029) were Hispanic, 22.8% (2,604) were black non-Hispanic, 5.3% (605) were Asian, and 0.6% (74) were Native American.

	Mass.	Year
Characteristics of Children & Families		
Percent of Children Living with Two Parents	72.1%	(1990)
Percent of Children Living with their Mother and No Husband Present	18.3%	(1990)
Percent of Children not Living with Either Parent	3.1%	(1990)
Economic Indicators For Families & Children		
Median Income for Families with Children (1989 Dollars)	$40,930	(1989)
Median Income for Families with Children, Among Incomes in the Bottom 5th Percentile (1989 Dollars)[1]	$7,991	(1989)
Unemployment Rate for Persons Age 16 & Over	6.9%	(1993)
Unemployment Rate for 16-19 Year Olds	19.0%	(1993)
Percent of "Related" Children Living in Poverty[2]	12.9%	(1989)
Prenatal, Birth, and Infant Characteristics		
Birth Rates for Teenage Women (per 1,000 women Ages 15-19)	33.4	(1991)
Percent of Pregnant Women who Registered in Their First Trimester for Prenatal Care	85.8%	(1991)
Percent of Pregnant Teenage Women who Registered in Their First Trimester for Prenatal Care (Women under age 20)	65.8%	(1991)
Percent of Low Birth Weight Infants Born	5.9%	(1991)
Infant Mortality Rates (per 1,000 live births)	6.5	(1991)

	Mass.	Year
Child & Adolescent Behaviors & Health		
Childhood Lead Poisoning Rate (per 100,000 tested, ages 6 Months-6 Years)	.25	(1992)
Child Mortality Rates (per 100,000 Ages 1-14)	20.3	(1989-91)
Sexually Transmitted Disease Rate (per 100,000 Teenagers 15-19)	850.5	(1992)
Adolescent Death Rate (per 100,000 Teenagers 15-19 Years)	57.5	(1989-91)
Suicide Death Rates (per 100,000 Teenagers 15-19)	5.8	(1989-91)
Homicide Death rates (per 100,000 Teenagers 15-19)	10.0	(1989-91)
Education		
Percent High School Graduates Planning Post-Secondary Education	71.7%	(1992)
Dropout Rates (per 100 students in Grades 9-12)	4.0	(1992)
Percent of Students Retained in Grade	2.1%	(1992)
Selected Services for Families & Children		
Percent of Eligible Infants and Children Served by WIC	73.0%	(6/1993)
Maximum Number of Licensed Child Care Slots	168,766	(11/93)

1. Median income of families with children in the bottom fifth is the median annual income for families with related children under age 18 whose incomes are in the bottom 20 percent of the income distribution among all families.

2. Information on poverty status in this report is given for "persons under age 18". In 1980, the U.S. Bureau of the Census only published the percent of "related children under age 18" living below poverty, therefore this percent was used to show a trend. "Related children" living in poverty excludes those children living outside their family.

The Status of Massachusetts with Respect to Selected Healthy People 2000 National Health Promotion and Disease Prevention Objectives

Year 2000 Objective	Massachusetts Status in 1991	Federal Year 2000 Target
Prenatal Care and Birth Outcomes		
Reduce the infant mortality rate (per 1000 live births)	6.5	7.0
Reduce the infant mortality rate among blacks (per 1000 live births)	15.0	11.0
Reduce the Puerto Rican infant mortality rate (per 1000 live births)	9.4	8.0
Reduce the neonatal mortality rate (per 1000 live births)	4.5	4.5
Reduce the black neonatal mortality rate (per 1000 live births)	10.7	7.0
Reduce the Puerto Rican neonatal mortality rate (per 1000 live births)	6.2	5.2
Reduce the postneonatal mortality rate (per 1000 live births)	2.0	2.5
Reduce the black postneonatal mortality rate (per 1000 live births)	4.3	4.0
Reduce the Puerto Rican postneonatal mortality rate (per 1000 live births)	3.2	2.8
Reduce the percentage of births which are low birthweight and very low birthweight	LBW = 5.9% VLBW = 1.1%	LBW = 5% VLBW = 1%
Reduce the percentage of black births which are low birthweight and very low birthweight	LBW = 11.6% VLBW = 2.7%	LBW = 9% VLBW = 2%
Increase the percentage of women receiving prenatal care in first trimester	85.8%	90%
Increase the percentage of black women receiving prenatal care in first trimester	61.3%	90%
Increase the percentage of Hispanic women receiving prenatal care in first trimester	67.9%	90%

(continued)

Year 2000 Objective	Massachusetts Status in 1991	Federal Year 2000 Target
Morbidity		
Reduce asthma morbidity in children as measured by a reduction in asthma hospitalization (rate per 100,000) * discharges among children < 20 years old, excluding discharges among newborn infants	309*	225
Reduce cases of maltreatment to children < 18 years old (cases per 1,000)	18.1	25.2
Reduce physical abuse to children < 18 years old (cases per 1,000)	4.8	5.7
Reduce sexual abuse to children < 18 years old (cases per 1,000)	1.8	2.5
Reduce neglect of children < 18 years old (cases per 1,000)	13.5	15.9
Mortality		
Reduce the suicide rate among 15-19 year olds (per 100,000)	4.1	8.2

Data Sources for Massachusetts Status in 1991:
Registry of Vital Records and Statistics, MDPH, 1991
Child Maltreatment Statistics, January 1 - December 31, 1992, Massachusetts Department of Social Services
Uniform Hospital Discharge Data Set, Massachusetts Rate Setting Commission, 1991

The United States Surgeon General and Public Health Service have developed *Healthy People 2000: National Health Promotion and Disease Prevention Objectives.* The broad goals of this initiative are to increase the span of healthy life, to reduce health disparities, and to achieve access to preventive services for all Americans. Objectives are targeted to improving health status among all Americans as well as particularly targeting groups whose health status is especially poor.

- Massachusetts has recorded lower infant and neonatal mortality rates than the Year 2000 target, but disparities persist among race/ethnicity groups. Many mothers still do not receive adequate prenatal care.

- Much of childhood morbidity and mortality is preventable. Although Massachusetts has lower rates for some indicators than the targets, many children still suffer.

NOTE: Special target populations reflect national criteria; some targets may not reflect particular needs in Massachusetts.

Part One

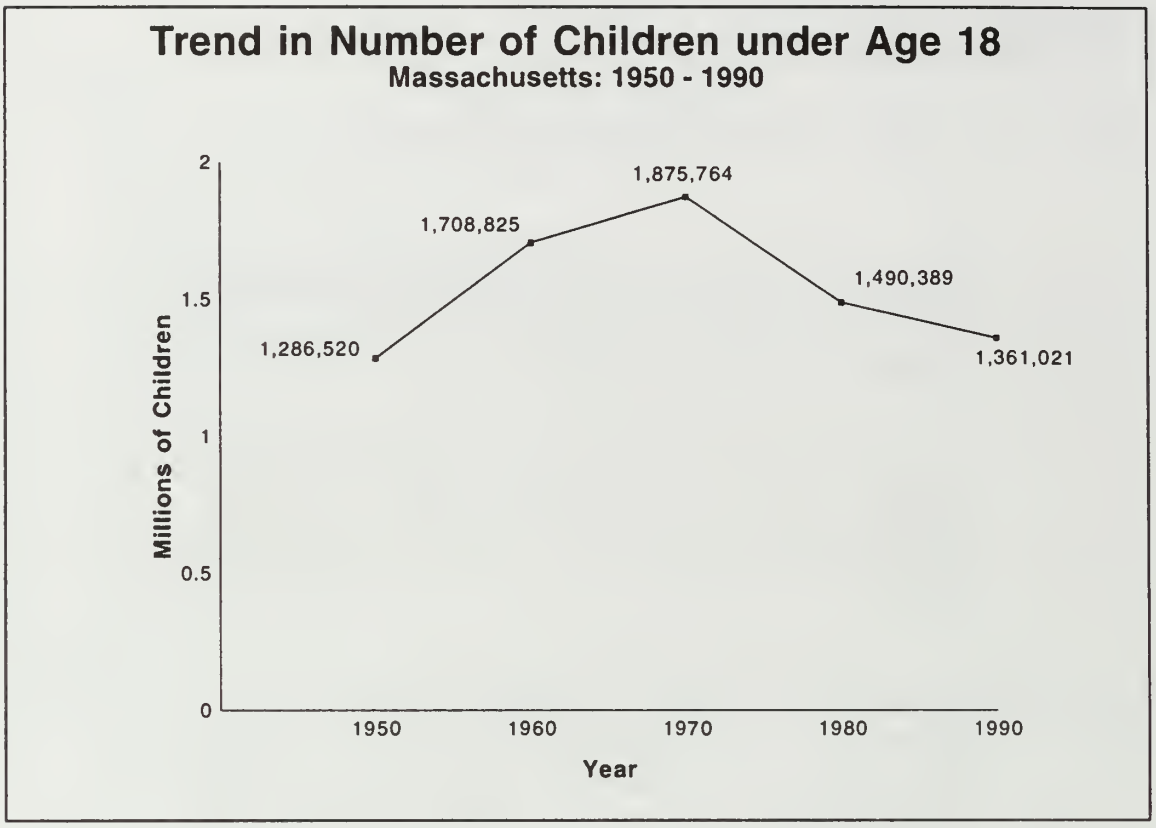
Demographics of Children and Families

Population dynamics and living arrangements are fundamental considerations for understanding conditions that affect the ability of children to live, learn and grow in a healthy and productive environment.

Part One presents trends in child population and living arrangement characteristics which are derived primarily from Federal 1990 Decennial Census data. Attributes of the child population, such as language spoken at home and urban-rural distribution are also presented.

Over the past twenty years, the child population in Massachusetts has declined both in absolute terms and as a percentage of the state's entire population. At the same time, Massachusetts children have become more racially and ethnically diverse as the proportion of the child population that constitutes racial and ethnic minorities continues to increase.

Family living arrangements have also changed. The number of children living in one-parent families has increased and the majority of children living in one-parent families lived in households headed by a single woman.



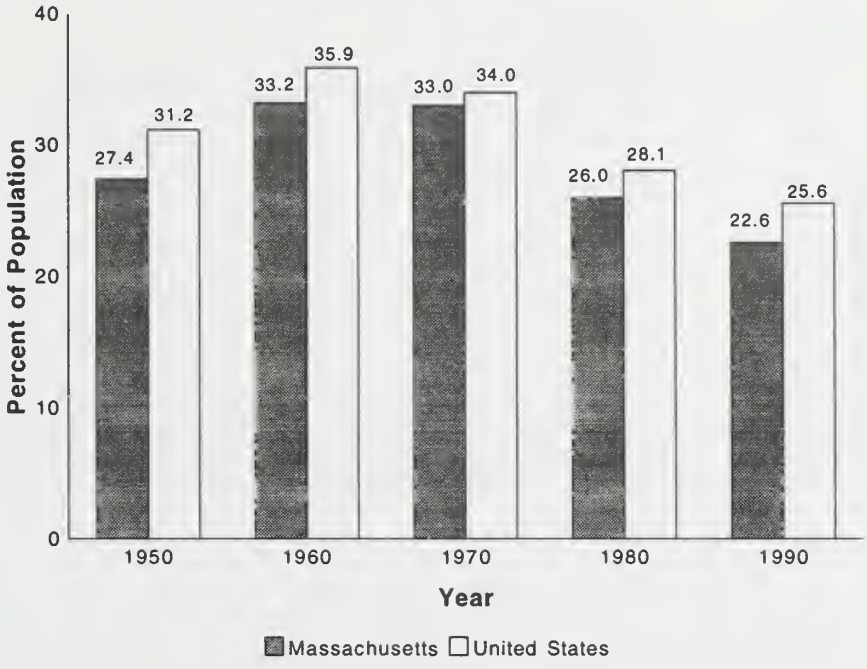
Sources: US Bureau of the Census, Decennial Censuses 1950-1980, 1990 MARS File

- In 1990, there were 1,361,021 children under the age of 18 in Massachusetts. The total population of Massachusetts for all ages in 1990 was 6,016,425.
- From a high of 1,875,764 children in 1970, the total number of children under 18 in Massachusetts had declined 27.4% by 1990.

NOTE: See Technical Notes for explanation of census data and MARS file.

Children under Age 18 as a Percent of the Population

Massachusetts and United States: 1950 - 1990



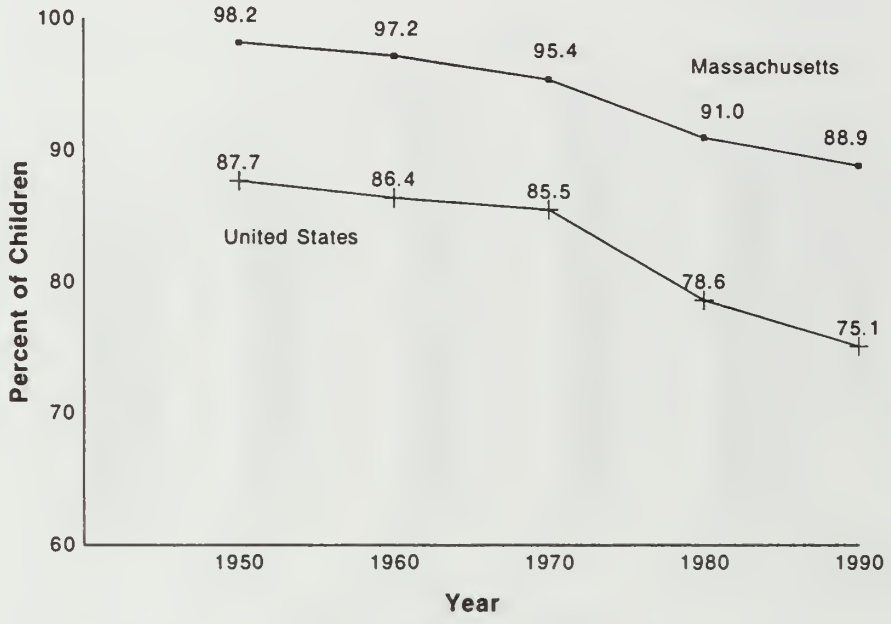
Sources: US Bureau of the Census, Decennial Censuses 1950-1980, 1990 MARS File

- Over the past three decades, the Massachusetts population has been aging. Since 1960, there has been a steady decline in the percent of the total population under age 18 in Massachusetts, with the sharpest drop occurring during the 1970's. In 1960, 33.2% of the population were children, compared to 22.6% in 1990, almost a one-third decrease in the proportion of the total population under age 18. While the percentage of children under 18 in the Massachusetts population has been consistently lower than the corresponding percentage nationally, the pattern of steady decline closely mirrors that for the nation.

- In 1990, one in four people (25.6%) living in the United States was under age 18, the lowest percentage in the last five censuses. (Source: US Bureau of the Census, 1990 MARS file).

Percent of Children under Age 18 Who Are White*

Massachusetts and United States: 1950-1990



* includes persons of Hispanic ethnicity who reported their race as white

Sources: US Bureau of the Census, Decennial Censuses 1950-1980, 1990 MARS File

- The percent of the Massachusetts population under age 18 that was white (including Hispanics who reported their race as white) decreased steadily from 98.2% in 1950 to 88.9% in 1990, resulting in an overall percent decline of 9.5%.

- While the trend of increasing racial/ethnic diversity of Massachusetts children roughly mirrors national data, since 1970 the percent of children who are white has decreased more rapidly nationally than in Massachusetts.

Note: "Percent Children Who Are White" is the percentage of all children under 18 years of age whose race was indicated as "White". These children may or may not be of Hispanic ethnicity.

Number of Children by Age and Race/Ethnicity
Massachusetts: 1990

Age in Years	Race/Ethnicity					TOTAL
	White*	Black*	Hispanic	Asian and Pacific Islander*	American Indian*	
< 1	72,454	6,336	8,263	2,896	194	90,143
1-4	269,995	22,080	27,902	10,578	651	331,206
5-9	310,722	23,291	29,739	12,065	804	376,621
10-14	268,322	21,493	26,982	9,408	812	347,017
15-17	181,261	13,036	15,173	6,075	489	216,034
TOTAL < 18	1,122,754	86,236	108,059	41,022	2,950	1,361,021
18-19	168,018	11,551	12,766	7,254	407	199,996
TOTAL < 20	1,290,772	97,787	120,825	48,276	3,357	1,561,017
TOTAL All Ages	5,297,982	279,156	287,561	141,056	10,670	6,016,425

* non-Hispanic
Source: US Bureau of the Census, 1990 MARS File

- In 1990, over four in five children under the age of 18 (82.5%) in Massachusetts were white non-Hispanic.

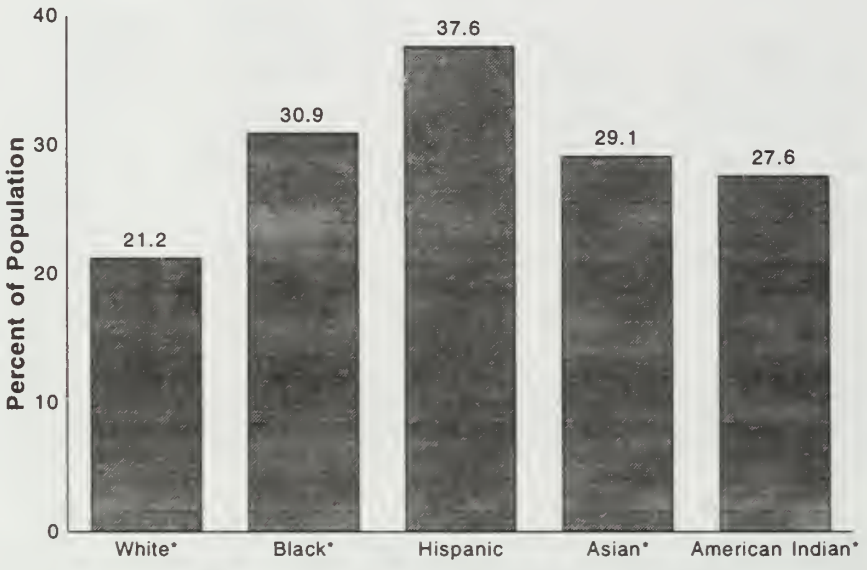
- Of the 17.5% of children who were not white non-Hispanic, 7.9% (108,059) were Hispanic, 6.3% (86,236) were black non-Hispanic, 3.0% (41,022) were Asian and 0.2% (2,950) were American Indian.

- The population of children in Massachusetts is becoming increasingly racially and ethnically diverse. Among children under age 20 in 1990, the percent who were white non-Hispanic was highest among 18-19 year olds (84.0%), and lowest among infants less than one year (80.4%).

NOTE: The number of children less than one year old (90,143) is the number of children less than one year old at the time the 1990 Census was conducted and is somewhat lower than the number of children born to Massachusetts residents that year (92,461). See the Technical Notes for an explanation of the Census data. See Appendix A for more detailed age, race and ethnicity population counts.

Children under Age 18 as a Percent of Total Population within Race/Ethnicity

Massachusetts: 1990



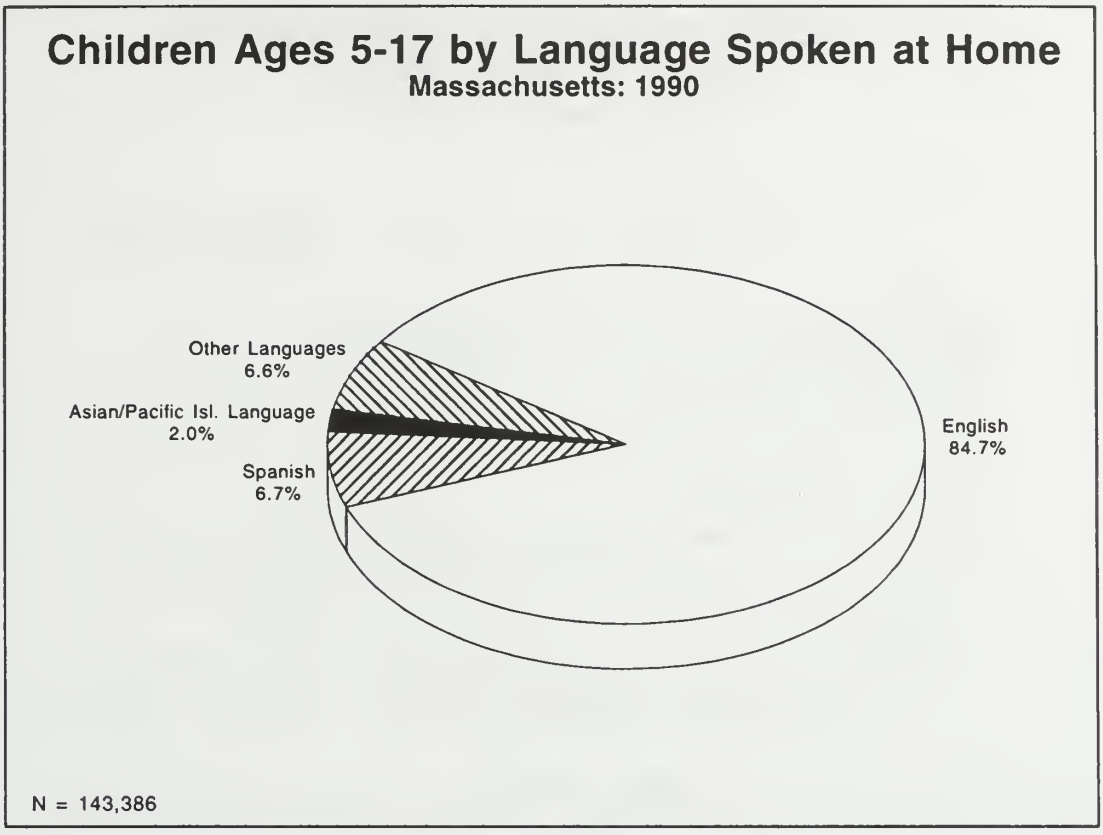
* non-Hispanic

Source: US Bureau of the Census, 1990 MARS File

- In 1990, the Hispanic population in the Commonwealth had the highest proportion of children compared to the other race/ethnicity groups, followed, in order, by the black, Asian and American Indian populations. The white population had the lowest proportion of children.

- Over one in three (37.6%) Hispanic persons in the state were under age 18, and nearly one in three black residents (30.9%) and Asian residents (29.1%) were children under age 18. Children accounted for 27.6% of the American Indian population in Massachusetts in 1990.

- Just over one in five white non-Hispanic residents was under age 18 in 1990.



Source: US Bureau of the Census, MARS file adjusted Decennial Census, 1990 (STF3)

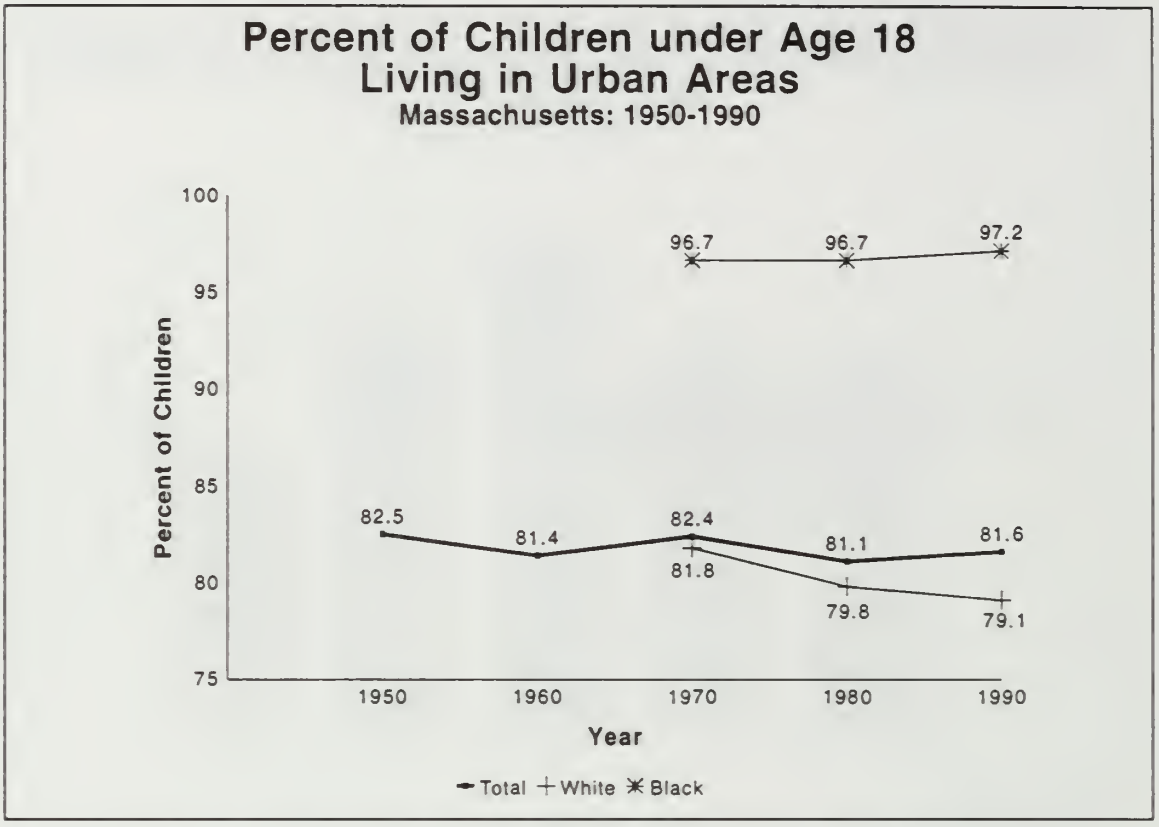
- According to the 1990 U.S. Census, 143,386 Massachusetts children between the ages of 5 and 17 lived in households where English was not spoken at home. The percent of children living in non-English speaking homes, (15.3%), was higher than for the United States as a whole, (13.9%) (data not shown).

- 62,609 children ages 5-17 lived in Spanish-speaking homes.

- 19,125 children ages 5-17 lived in homes where an Asian or Pacific Islander language was spoken.

- The percent of children living in non-English speaking homes increased from 9.0% in 1980 to 15.3% in 1990 (data not shown).

Note: Language spoken at home is the language children ages 5-17 speak at home, regardless of their proficiency in English or the primacy of English in the home. Data are not reported by race or Hispanic origin.



Sources: US Bureau of the Census, Decennial Censuses 1950-1980, MARS file adjusted Decennial Census 1990 (STF2)

- In 1990, 81.6% (1,110,990) of children under age 18 lived in urban areas (areas with a population of 2,500 persons or more) of Massachusetts, compared to 73.5% of children nationwide (data not shown). The percent of Massachusetts children living in urban areas has remained fairly constant over the past 40 years.

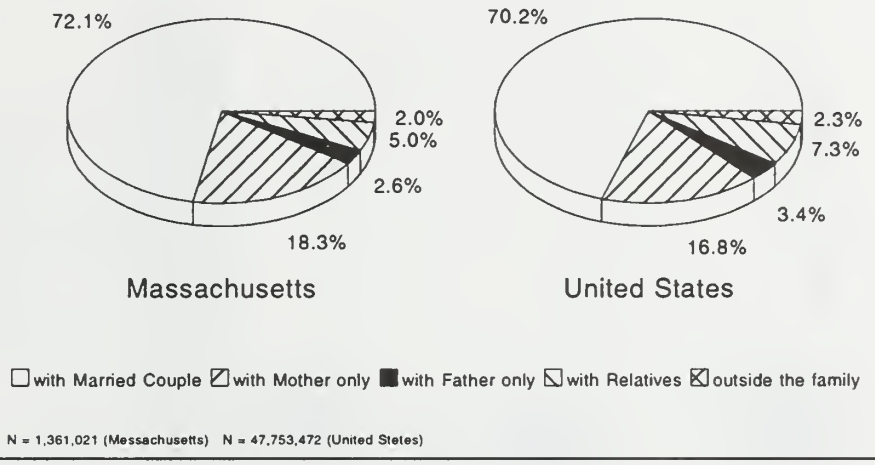
- The remaining 18.4% (250,031) of children lived in rural areas with populations less than 2,500.

- Most (97.2%) black children under the age of 18 lived in urban areas while 79.1% of white children were urban dwellers. (Hispanic children may be of either race and are included in the percentages for whites and blacks).

NOTE: Data for white and black children includes Hispanics who identified themselves as being of white or black race. Prior to 1970, the U.S. Census did not separate blacks from the nonwhite category.

Living Arrangements of Children Under Age 18

Massachusetts and United States: 1990



Source: US Bureau of the Census, MARS file adjusted Decennial Census, 1990 (STF2 and STF3)

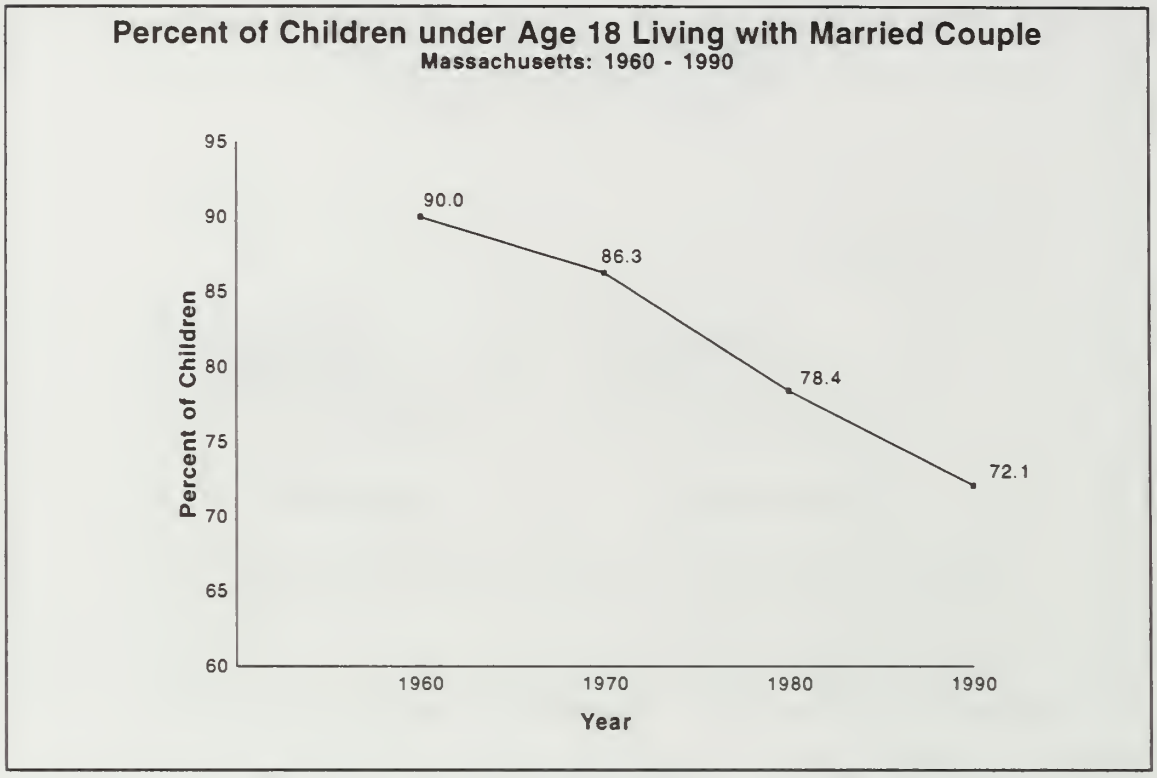
- The living arrangements of Massachusetts children under 18 closely parallel those for children under 18 nationally. In 1990, 72.1% (981,729) of children under age 18 lived in married-couple families in Massachusetts -- comparable to the national figure of 70.2%.

- 284,091 Massachusetts children were living in single-parent families; 249,073 were living with their mother only and 35,018 were living with their father only. An additional 39,800 children were living with one parent and other relatives.

- An estimated 41,923 (3.1%) Massachusetts children under age 18 were not living with either parent. These children either were living outside their family (including foster care arrangements) or were living with relatives without either parent. The number of children not living with a parent increased 74.4% between 1970 and 1990 (data not shown).

- There were approximately 67,627 children living in households headed by a relative. These children's parents may or may not have been present in the household; for example a child who lived with both parents in a household headed by a grandparent would be a child "living in a household headed by a relative." Approximately 48,266 (71.4%) of the children living in households headed by a relative were living with one or both of their parents. The number of children living with relatives and one or both parents nearly doubled between 1970 (25,141) and 1990 (48,266) (data not shown).

NOTE: Numbers of children presented in this graph have been adjusted using the MARS file and were calculated based on percentages to the seventh decimal place. Therefore, the numbers cannot be replicated from the percentages on the graph.



Sources: US Bureau of the Census, Decennial Censuses, 1960-1980, MARS file adjusted Decennial Census, 1990 (STF2)

- In 1960, 9 in 10 children under age 18 (1,541,918) lived with two parents. In 1990, fewer than 3 in 4 children lived in a married-couple family, nearly a 20% decline since 1960.

- Conversely, the proportion of children living in single-parent families in Massachusetts has been growing. In 1970, one in ten (10.2%) children lived in a single parent family. By 1990, one in five (20.9%) children lived with one parent.

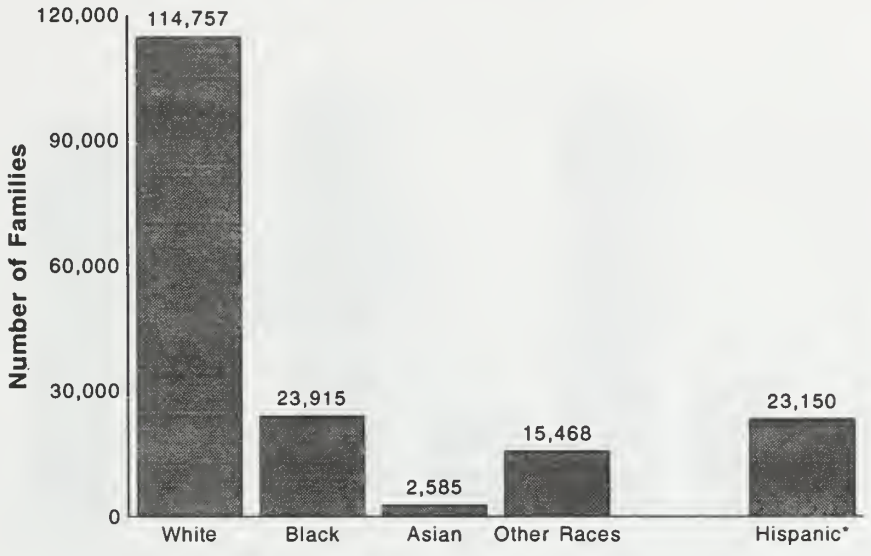
- The number of children under age 18 living with only their mother increased 43.0% over the past two decades, from 174,191 children in 1970, to 244,875 in 1980, peaking at 249,073 children in 1990. The number of children living with only their father has also increased 95.5% since 1970 (from 17,908 to 35,018).

- The number of children living outside their family also has increased over time. In 1990, there were 27,574 children living on their own, living with nonrelatives, living in institutions, or living in group quarters. In 1970, this number was 22,633.

NOTE: In the 1980 decennial census there was a change in the wording of this variable's definition: children under 18 living with two parents was changed to children under 18 living with a married couple. The percent of children living with two parents does not include children living with two parents in households headed by a relative. In 1990, there was a total of 8,466 children living with married couples in households headed by a relative. See Glossary for definition of married-couple family with children.

Female-Headed Families with Children under Age 18 and No Husband Present by Race and Hispanic Ethnicity

Massachusetts: 1990



*Hispanic persons may be of any race
N = 156,725

Source: US Bureau of the Census, Decennial Census, 1990 (STF1)

- In 1990, there were 725,173 families with related children under age 18 in Massachusetts, of which 156,725 were female-headed families with no husband present.

- Nearly three fourths (73.2%) of all female-headed families were white, 15.3% were black, 1.6% were Asian and 9.9% were of other races.

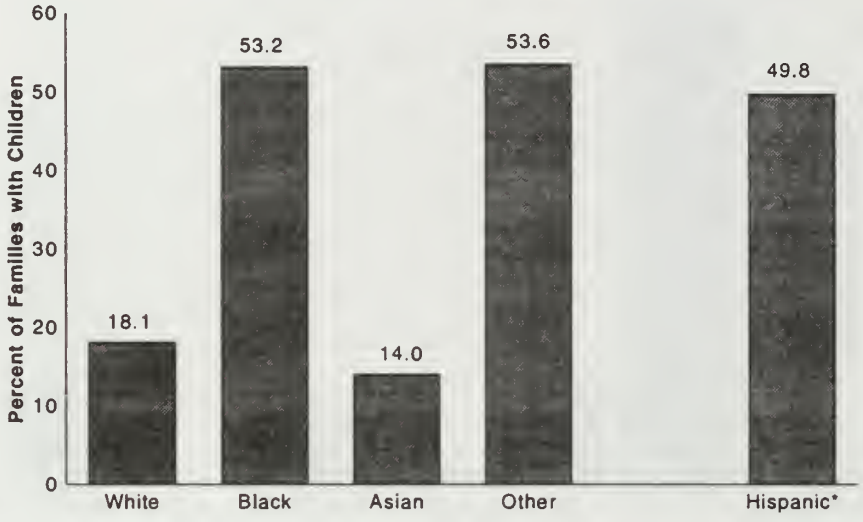
- Among all female-headed families, 14.8% of the heads of household identified themselves as being of Hispanic ethnicity. (Hispanics may be of any race; therefore, Hispanics are included among white, black, Asian, and other races).

- 27,122 (3.7%) families with children under age 18 were male-headed with no wife present (data not shown).

NOTE: Families here are defined as those with "related" children. Related children include all never-married children under age 18 who are sons or daughters by birth, stepchildren, or adopted children of the householder, *and* all other persons under 18 years of age in the household, regardless of marital status, who are related to the householder, except foster children and the spouse of the householder.

Percent of Families with Children under Age 18 that Were Female-Headed with No Husband Present, within Race and Hispanic Ethnicity

Massachusetts: 1990



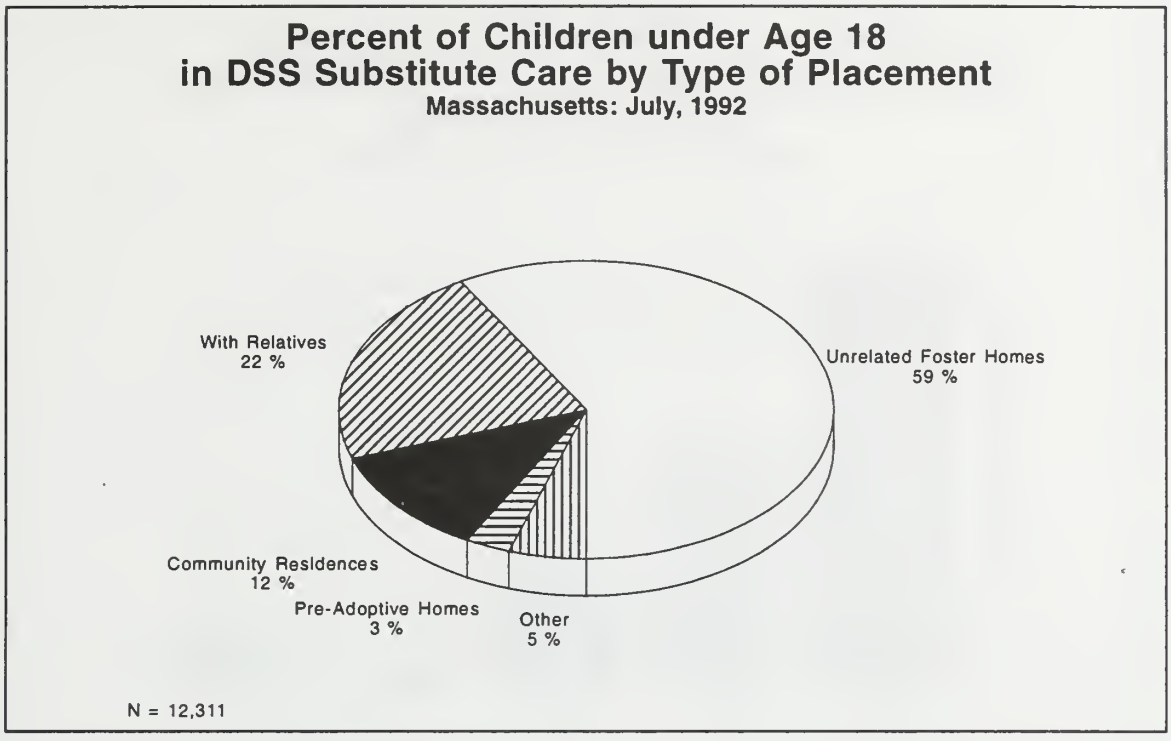
* Hispanic persons may be of any race
N = 725,173

Source: US Bureau of the Census, Decennial Census, 1990 (STF1)

- In 1990, 53.2% of black families and 49.8% of Hispanic families with related children under age 18 were headed by females with no husband present. (Note that Hispanic persons may be of any race and are included in the race categories).

- Asian families were the least likely of any group to be headed by a single mother (14.0%), followed by white families (18.1%)

NOTE: Families here are defined as those with "related" children. Related children include all never-married children under age 18 who are sons or daughters by birth, stepchildren, or adopted children of the householder, *and* all other persons under 18 years of age in the household, regardless of marital status, who are related to the householder, except foster children and the spouse of the householder.



Source: *Department of Social Services Annual Demographic Report on Consumer Populations July, 1992*, Massachusetts Department of Social Services, November, 1992.

- In July 1992, approximately 1% (12,311) of all Massachusetts children under age 18 were in Department of Social Services (DSS) substitute care.

- Of the children in substitute care, 59% were formally placed in unrelated foster homes, 22% with relatives, 12% in community residences and 3% in pre-adoptive homes. A small portion of children were placed in other living arrangements: 1% in non-temporary medical institutions, 1% in supervised independent living homes, 1% in emergency shelters and an additional 2% were designated by DSS as "on the run" from placement (data not shown).

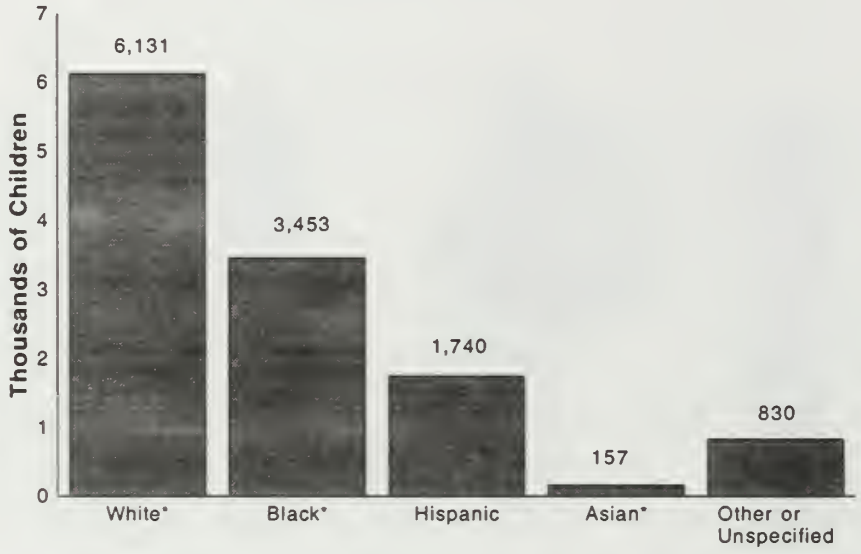
- Adolescents ages 12-17, constituted the largest age group (38%) in DSS substitute care. However, the fastest growing age group was children under 6 years of age, representing 35% of children in substitute care (data not shown).

- From 1988 to 1992, the median length of time children spent in DSS substitute placement increased from 1.5 to 1.9 years (data not shown).

- In July 1992, 70% of the children placed in DSS substitute care had substantiated maltreatment reports as the reason for initial contact, most commonly for reports of abuse and/or neglect. Other contacts were through Children In Need of Services (CHINS) and voluntary requests for services (data not shown).

Number of Children under Age 18 in DSS Substitute Care by Race/Ethnicity

Massachusetts: July, 1992



N = 12,311
* non-Hispanic

Source: *Department of Social Services Annual Demographic Report on Consumer Populations July, 1992*, Massachusetts Department of Social Services, November, 1992.

- In July 1992, half of the 12,311 children in Department of Social Services substitute care were white non-Hispanic, over a quarter (28%) were black non-Hispanic, nearly one in seven (14%) was Hispanic and 1% were Asian. Of the remaining children, 5% were designated as other races/ethnicities, and 2% had unspecified race/ethnicity.

- Although a majority of the children in DSS substitute care were white non-Hispanic, white non-Hispanic children were less likely than other children to be in DSS substitute care. Nearly 90% of children under age 18 in Massachusetts were white non-Hispanic; however, 50% of children in DSS substitute care were white non-Hispanic.

- White non-Hispanic children were less likely to be formally placed with relatives than children of other races/ethnicities (data not shown).

Part Two

Economic Indicators for Families and Children

Part Two focuses on economic factors that affect the lives of children and their families. As in Part One, most of the data are derived from the federal 1990 Decennial Census.

The data illustrate a relationship between family economic status and living arrangements for children and their parents. Economic disparities, the incidence of poverty among children compared with that found among the general population, and contrasts in the incidence of poverty by race and ethnicity are shown.

Economic independence is closely linked to the opportunity to engage in productive work. Part Two also examines employment and unemployment among children of working age and among parents of children. Some characteristics of Massachusetts residents without health insurance are also presented.

Median Income of Families with Children under Age 18, Overall and in the Bottom and Top Fifths of Median Income Massachusetts: 1981-1989

	Yearly Income (in 1989 Dollars)					1989: percent change from	
	1981	1986	1987	1988	1989	1981	1988
All Families	$36,707	$41,821	$43,177	$43,463	$40,930	+11.5	-5.8
Bottom Fifth	9,109	8,215	8,368	8,591	7,991	-12.3	-7.0
Top Fifth	69,361	78,984	80,657	81,338	77,602	+11.9	-4.6

Sources: *Kids Count Data Book, 1992* and *Kids Count Data Book, 1993*, Annie E. Casey Foundation and Center for the Study of Social Policy.

- In 1989, the median annual income of Massachusetts families with children under age 18 was $40,930, nearly 25% more than the national figure of $32,772 (data not shown).

- Between 1981 and 1989, median annual family income increased 11.5% among all families, after adjusting for inflation. However, median family income declined $2,533, or 5.8%, from 1988 to 1989.

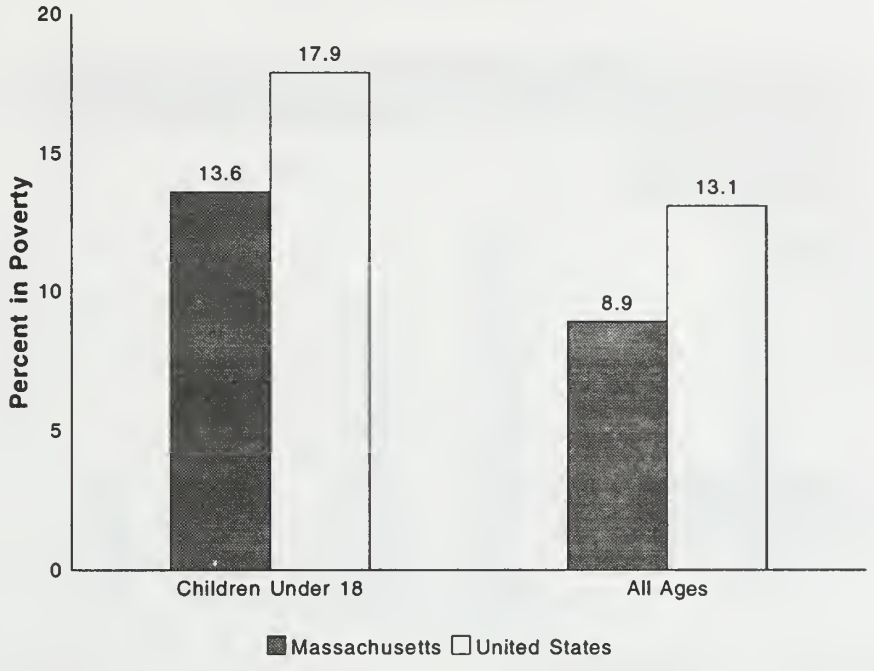
- The gap between the richest and the poorest Massachusetts families widened between 1981 and 1989. Median annual income of families with children under age 18 in the top fifth of the income distribution of all families increased nearly 12% during this period, while median income of families in the bottom fifth of the income distribution declined more than 12%. By 1989, the median income of families in the top fifth was nearly 10 times higher than the median income of families in the bottom fifth.

- Although Massachusetts families had a higher median income in 1989 than families nationwide, families in the bottom fifth of the income distribution in Massachusetts had a lower median income than low-income families nationwide ($7,991 vs. $8,529 respectively). At the same time, Massachusetts families in the top fifth of the income distribution had higher median incomes than comparable families nationwide ($77,602 vs. $74,656) (data not shown).

NOTE: Median family income is the value that divides the range of annual family income into two halves. The median family income for each year reported above is a five year average; e.g., the 1989 median is the average of median annual family incomes from 1987 through 1991. The top and bottom fifths refer to the top and bottom 20% of the income distribution among all families.

Percent of Persons Living in Poverty by Age

Massachusetts and United States: 1989



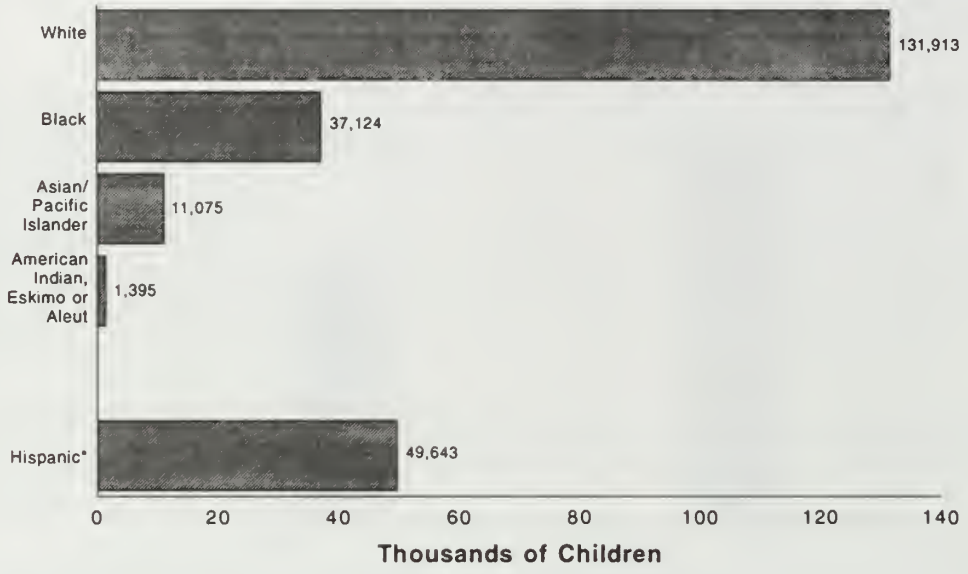
Source: US Bureau of the Census, MARS file adjusted Decennial Census, 1990 (STF3)

- The proportion of children living in poverty in 1989, was substantially lower in Massachusetts than in the nation as a whole: 13.6% vs. 17.9% respectively.
- In 1989, 181,507 Massachusetts children under age 18 were living below 100% of the federal poverty level.
- Massachusetts children were nearly 53% more likely to be living in poverty than the general population of Massachusetts.

NOTE: See the Technical Notes for an explanation of the procedure used to calculate the number and percent of children in poverty in Massachusetts.

Number of Children under Age 18 Living in Poverty by Race and Hispanic Ethnicity

Massachusetts: 1989



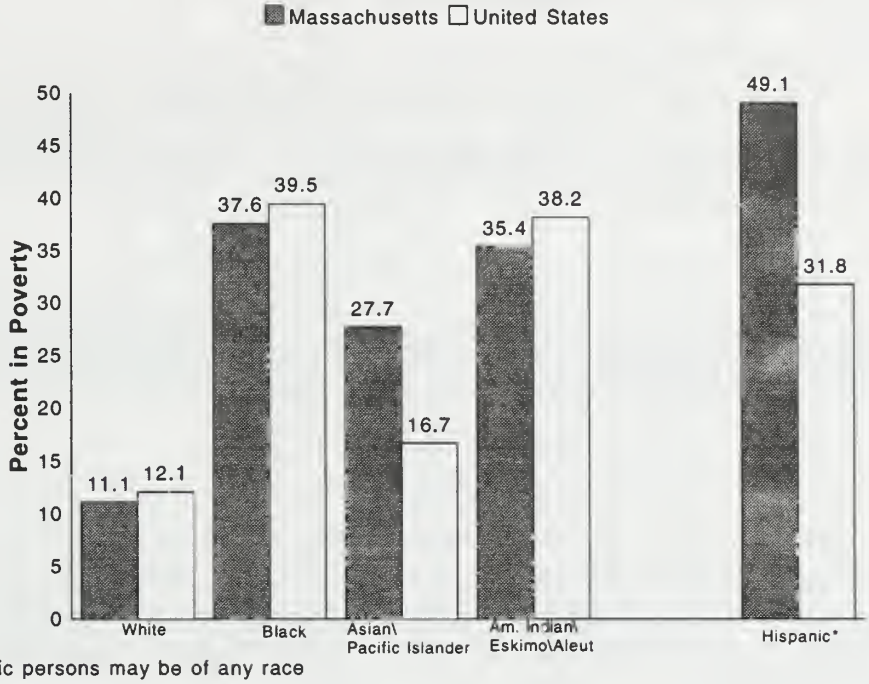
*Hispanic persons may be of any race

Source: US Bureau of the Census, MARS file adjusted Decennial Census, 1990 (STF3)

- In 1989, nearly three in four (72.7%) Massachusetts children living in poverty were white. One in five (20.4%) were black and 6.1% were Asian.
- Nearly 30% of all poor children were of Hispanic ethnicity. (Hispanic ethnicity includes persons of all races.)

Percent of Children under Age 18 Living in Poverty within Race and Hispanic Ethnicity

Massachusetts and United States: 1989



*Hispanic persons may be of any race

Source: US Bureau of the Census, MARS file adjusted Decennial Census, 1990 (STF3)

- The greatest number of poor children in 1989 were white (131,913). They represented 11.1% of all white children under age 18: as compared to 12.1% of all white children nationally.

- More than one third of black and American Indian children living in Massachusetts in 1989 lived in poverty, and almost 30% of Asian children were poor. While the percentage for blacks is slightly under the corresponding national figure, Massachusetts Asian children were poorer than their national counterparts.

- Nearly half (49.1%) of all children of Hispanic ethnicity living in Massachusetts were poor in 1989, compared to 31.8% of Hispanic children nationally.

Number and Percentage of Children Living Below 185% and 200% of the Poverty Threshold by Age Group Massachusetts: 1989

Age Group	Below 185% of Poverty Threshold		Below 200% of Poverty Threshold	
	Number	% of Age Group	Number	% of Age Group
< 5 years	106,946	25.8	117,309	28.3
5-11 years	132,104	25.7	145,983	28.4
12-17 years	88,310	21.4	96,976	23.5
TOTAL < 18	327,360	24.4	360,268	27.0

Source: US Bureau of the Census, MARS file adjusted Decennial Census, 1990 (STF4B)

- In 1989, 327,360 children under age 18 lived below 185% of the poverty threshold. An additional 33,908 children under age 18 lived below 200% of the poverty level. These categories include children who are near poverty or at risk for living in poverty. Many state and federal programs use 185% and 200% of poverty as guidelines for eligibility for services.

- More than one out of four children under age 5 with known poverty status lived below 185% of poverty in 1989, with income less than $23,448 for a family of four.

- Almost one third of Massachusetts children under age 18 with known poverty status lived below 200% of the poverty line in 1989, with income less than $25,350 for a family of four.

Employment Status of Persons Age 16 and Older by Sex, Age, Race, and Hispanic Ethnicity Massachusetts: 1992

Population Group	Total Population 16+ (in thousands)	Civilian Labor Force* (in thousands)					
		Total		Employed		Unemployed	
		#	% of pop.	#	% of pop.	#	Rate
TOTAL	4,630	3,126	67.5	2,862	61.8	265	8.5
Men	2,164	1,648	76.2	1,487	68.7	162	9.8
Women	2,465	1,478	60.0	1,375	55.8	103	7.0
Both sexes, ages 16-19	270	145	53.6	115	42.7	29	20.2
White	4,362	2,953	67.7	2,717	62.3	237	8.0
Men	2,045	1,558	76.2	1,412	69.1	146	9.4
Women	2,317	1,395	60.2	1,305	56.3	91	6.5
Black	174	117	67.2	96	55.1	21	17.9
Men	76	62	80.6	49	64.6	12	19.8
Women	98	55	56.7	47	47.7	9	15.9
Hispanic Origin**	130	73	55.9	61	47.1	11	15.1
Men	55	38	70.6	32	58.9	6	16.6
Women	75	34	45.4	29	38.7	5	14.7

* Civilian, non-institutionalized population ** Hispanic persons may be of any race
Source: Massachusetts Department of Employment and Training, 1993

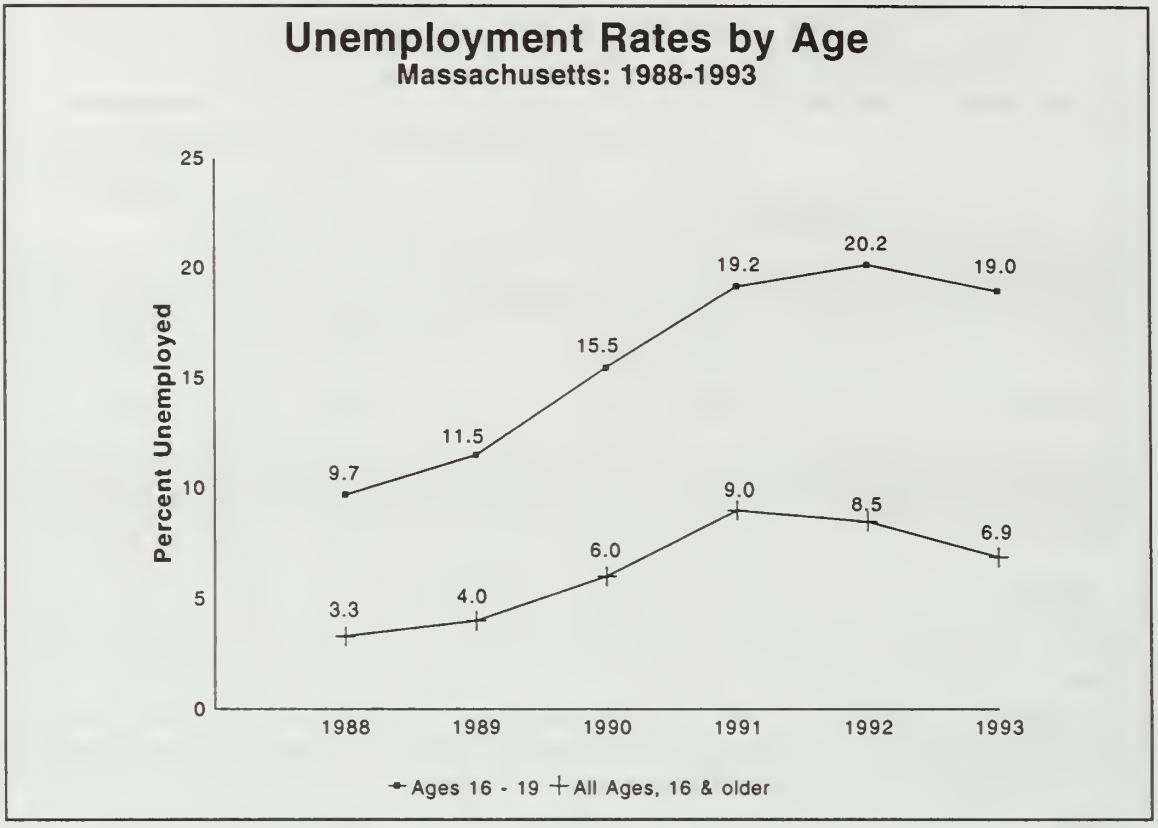
- In 1992, there were approximately 3,126,000 persons age 16 and older in the civilian labor force on average each month, 145,000 of whom were aged 16-19.

- On average, nearly two in three of all adults over age 15 who were white (includes Hispanic ethnicity) were employed (62.3%) each month, and a little more than half of all adults over age 15 who were black (includes Hispanic ethnicity) were employed (55.1%). The proportion of all Hispanic persons over age 15 who were employed was less than half (47.1%).

- Roughly 29,000 16-19 year old teenagers were unemployed on average each month. This represents one in five teenagers in the civilian labor force (20.2%).

- The unemployment rate among blacks aged 16 and older was 17.9%, among whites it was 8.0% and among persons of Hispanic origin it was 15.1%.

NOTE: See Glossary for definitions of civilian labor force and unemployed persons. The numbers in table refer to the annual average of monthly estimates. The unemployment rate is calculated by dividing the number of unemployed by the number in the civilian labor force.



Source: Massachusetts Department of Employment and Training, 1988-1993

- In 1992, the annual average unemployment rate in Massachusetts (8.5%) was slightly higher than the national unemployment rate (7.4%). In 1993, the Massachusetts and national unemployment rates were much more similar: 6.9% and 6.8% respectively (data not shown).

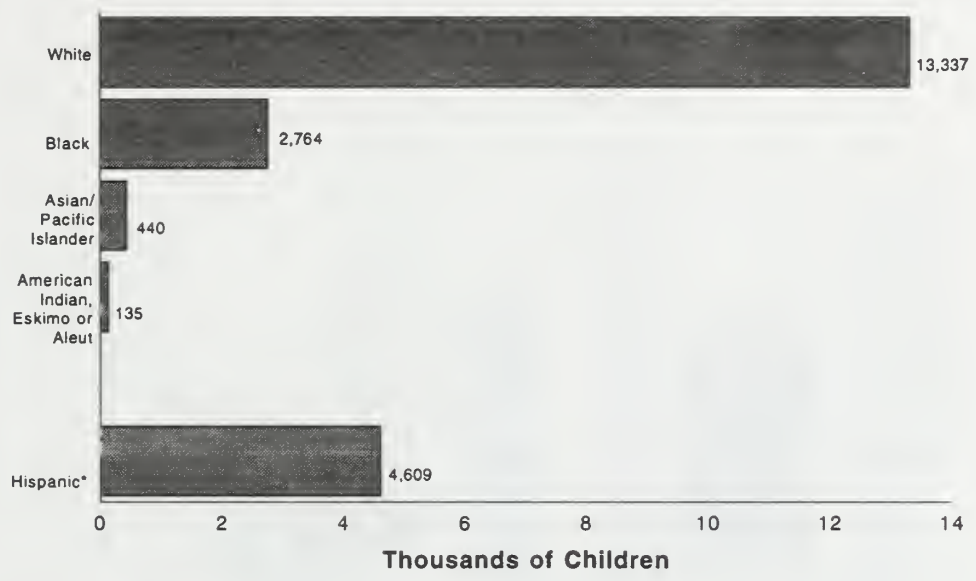
- In 1993, the unemployment rate for persons aged 16 and older had declined from 9.0% in 1991, to 6.9%. This decrease is a result of 446,000 more people employed in 1993 than in 1991, and 64,000 fewer people unemployed in 1993 than in 1991.

- The decline in unemployment between 1991 and 1993 was less dramatic among teenagers 16-19 years old. The 1993 rate (19.0%) was comparable to the rate in 1991 (19.2%) and nearly double the unemployment rate for this age group in 1988 (9.7%).

NOTE: National data are from the New England Regional Office of the U.S. Bureau of Labor Statistics. Employment and unemployment figures refer to the annual average of monthly averages.

Children Ages 16-19 Not in School and Not in the Labor Force by Race and Hispanic Ethnicity

Massachusetts: 1990



*Hispanic persons may be of any race
N = 16,676

Source: US Bureau of the Census, Decennial Census, 1990

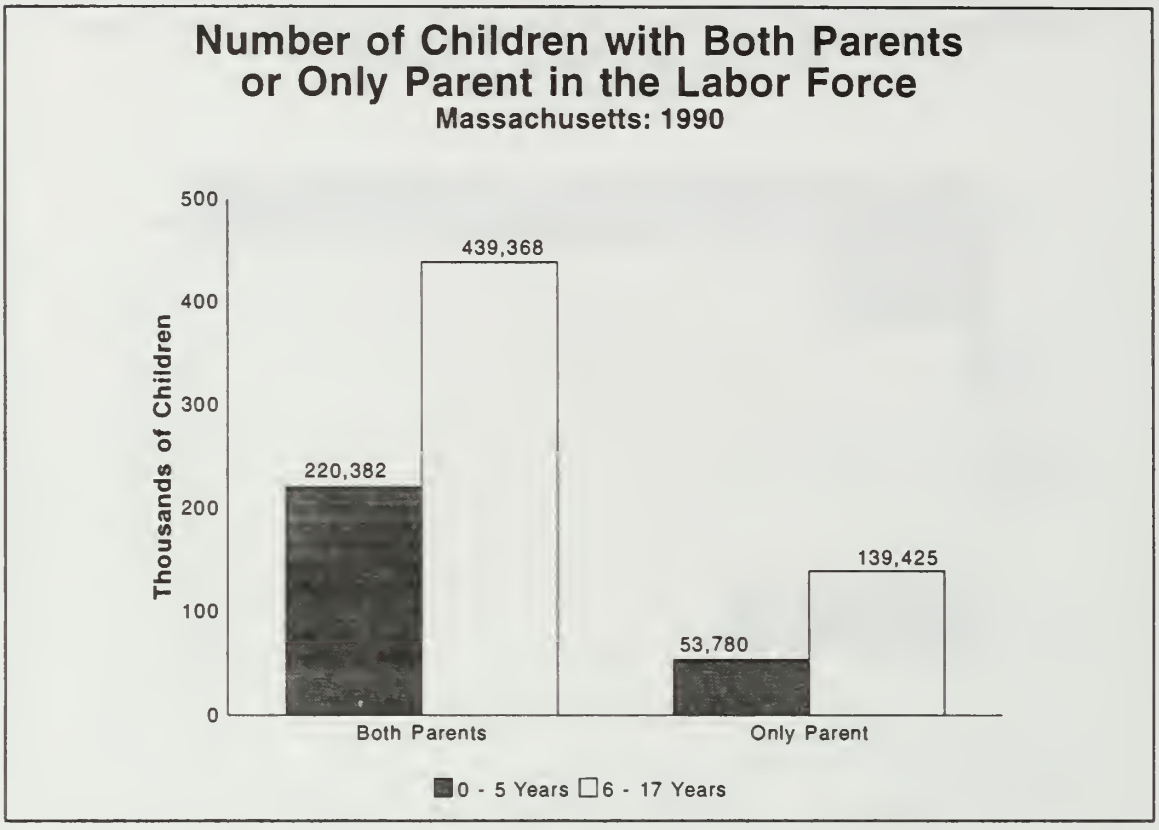
- In 1990, 16,676 adolescents ages 16-19 years were not in school and not in the labor force. This number represents 4.9% of Massachusetts adolescents ages 16-19.

- 80.0% of Massachusetts adolescents ages 16-19 years who were not in school and not in the labor force were white; this was somewhat lower than the distribution of white children among all children (86.3%).

- While black adolescents constituted 6.4% of all Massachusetts adolescents between the ages of 16-19, they made up 16.6% of adolescents ages 16-19 years not in school and not in the labor force.

- 27.6% of adolescents ages 16-19 who were not in school and not in the labor force were of Hispanic ethnicity, whereas 6.6% of all Massachusetts adolescents ages 16-19 were of Hispanic ethnicity.

- Only 2.6% of Massachusetts adolescents ages 16-19 years who were not in school and not in the labor force in 1990 were Asian, whereas 3.3% of all Massachusetts adolescents were Asian.



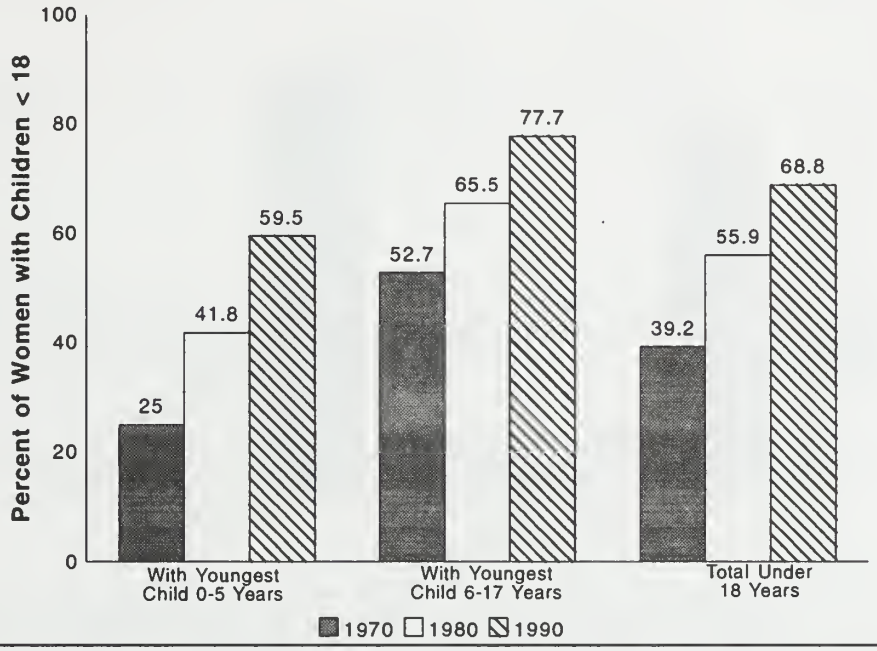
Source: US Bureau of the Census, MARS file adjusted Decennial Census, 1990 (STF3)

- In 1990, a total of 852,955 children under age 18 had both parents or their only parent in the labor force; this number represents nearly two thirds (62.7%) of all children living in Massachusetts. Almost half (659,750) of all Massachusetts children had both parents in the labor force, and over 14% (193,205) of all children were the children of single parents in the labor force.

- Older children had a greater chance of having both parents or their only parent in the labor force than younger children. Of the 487,577 children ages 0-5 with known labor force status of parents, 274,162 (56.2%) had both or their only parent in the labor force. Among the 829,879 children ages 6-17 where the labor force status of their parents was known, 578,793 (69.7%) had both or their only parent in the labor force.

Percent of Women with Children under Age 18 Who Were in the Labor Force

Massachusetts: 1970, 1980, 1990



Source: US Bureau of the Census, Decennial Censuses, 1970-1990

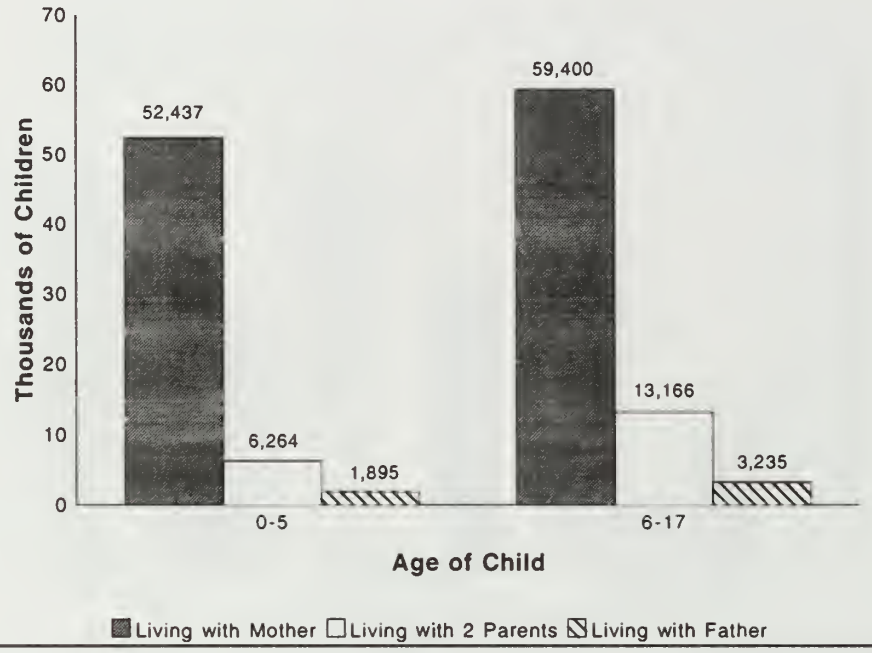
- Labor force participation rates are becoming more similar for women with children under age 18 regardless of the age of their youngest child.

- Labor force participation has increased much more rapidly among mothers with youngest children under age six compared to women with youngest children between the ages of 6 and 17. Between 1970 and 1990, the number of women with children less than six who were in the labor force has grown from 91,852 to 205,924, a 124.2% increase. During the same period, labor force participation of women with youngest children aged 6-17 grew from 202,668 to 278,078, a 37.2% increase.

- Among women with children under 18 in 1990, 484,002 (68.8%) were in the civilian labor force in Massachusetts. Of these women, 205,924 had a youngest child under age six, and 278,078 had a youngest child aged 6-17.

Children under Age 18 with No Parent in the Labor Force by Age and Living Arrangement

Massachusetts: 1990



Source: US Bureau of the Census, MARS adjusted Decennial Census, 1990 (STF3)

- In 1990, 10% of all Massachusetts children under age 18 (136,397) did not have a parent in the labor force.
- Among children less than 6 years old with no parent in the labor force, 86.5% were living with their mother, without a husband present.
- Among children 6 years old and older with no parent in the labor force, 78.4% were living with their mother, without a husband present.

Residents without Health Insurance by Age Group Massachusetts: 1989

Age Group	Number of Individuals	Percent of Uninsured	Percent of Age Group Uninsured
17 and Under	91,000	20	7
18 - 64	350,000	77	9
65 and Above	7,000	2	1
Not Sure/Refused	7,000	2	6
TOTAL	455,000	100*	8

* Does not equal 100% due to rounding.

Source: *A Household Survey of the Health Insurance Status of Massachusetts Residents, A Report of the Harvard School of Public Health*, Louis Harris Associates and the Massachusetts Department of Medical Security, October 1990.

- In 1989, approximately 8% of Massachusetts residents did not have any health insurance coverage.
- Among children under 18 years of age, 91,000 (7%) were without any health insurance coverage in 1989.
- The 1993 and 1994 *Kids Count Data Books* estimated the percent of Massachusetts children without any health insurance to be 7.5% in 1990 and 7.2% in 1991. Nationally, these percents were 14.0% and 12.6%, respectively.
- In 1989 one fifth (20%) of all uninsured residents were children under age 18.
- Uninsured children saw doctors only twice a year, or 50% less frequently than insured children who on average made 4 visits per year. Uninsured children experienced a rate of ill health similar to insured children (data not shown).

Part Three

Prenatal, Birth and Infant Characteristics

The grounds for childhood well-being are laid in the perinatal period. A woman's health, behavior, and access to prenatal care and perinatal medical technology all affect the well-being of her newborn.

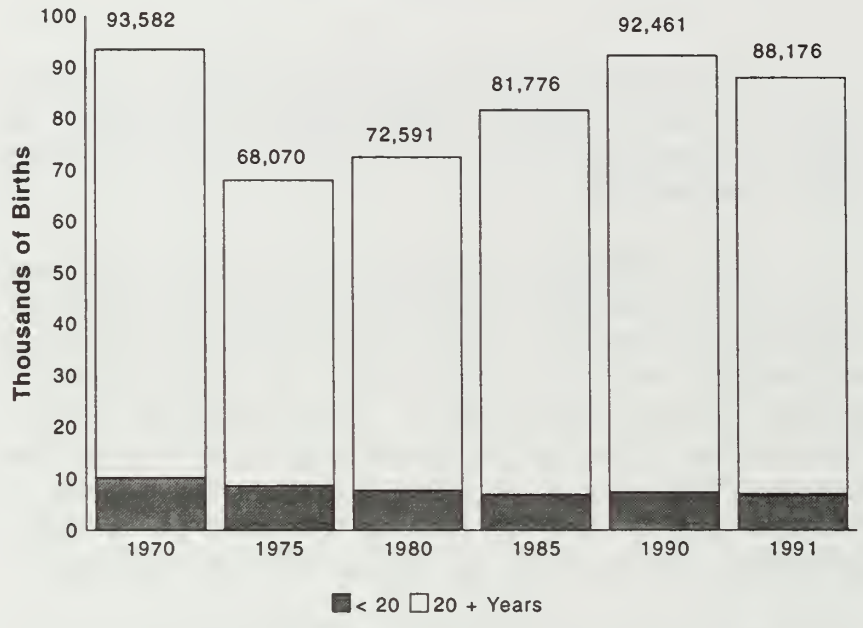
Low birthweight, prematurity, and infant mortality are traditional public health measures and are widely used to compare the health of communities. Both low birthweight and prematurity are associated with inadequate prenatal care. Infant mortality is strongly associated with prematurity and low birthweight. Adverse birth outcomes can encompass a broad range of severity, from the moderately premature or low birthweight infant who sustains no lasting delay or ill effects to the infant who survives with major disabilities to the infant who dies before his or her first birthday.

Using data compiled from Massachusetts vital records, Part Three examines indicators of risk during the perinatal period and of adverse birth outcomes. Because young mothers may have different risk factors, the data compare characteristics of all infants with those of infants born to women less than 20 years old.

Throughout the last decade, most Massachusetts infants had mothers who received care in their first trimester of pregnancy. Early registration varies with maternal age; women less than 20 years old are less likely to receive prenatal care during their first trimester of pregnancy. Both younger women and minority women are less likely to receive adequate care during their pregnancies.

Trend in Number of Resident Births by Mother's Age

Massachusetts: 1970 - 1991



Source: Registry of Vital Records and Statistics, MDPH, 1970-1991

- In 1991, 88,176 infants were born to Massachusetts residents, an increase of 30% since 1975. However, between 1970 (the year with the largest number of births in the last twenty-one years) and 1991, the number of births declined by 5.8%.

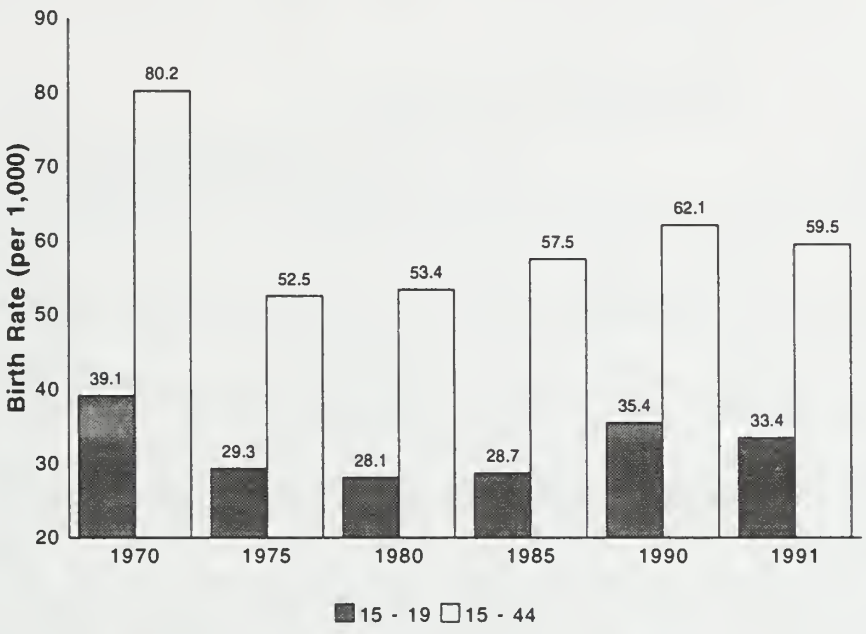
- Between 1990 and 1991, the number of births declined 5.0%. This was the first time in 16 years that the number of births declined from the prior year.

- The number of teen births declined 31.6% from 1970 to 1991 from 10,257 to 7,014, a decline almost six times as great as the decline in all births.

- The number of births to teen mothers (< 18 years old) declined from 2,929 in 1970 to 2,643 in 1991 (data not shown).

Trend in Birth Rates for Women Ages 15 - 19 and 15 - 44 Years Old

Massachusetts: 1970 - 1991



Source: Registry of Vital Records and Statistics, MDPH, 1970-1991

- The national birth rate for women ages 15-19 (62/1,000) was nearly 86% higher than the birth rate in Massachusetts in 1991. The increase in the national teen birth rate between 1980 and 1991 (17.0%), was similar to the increase in Massachusetts. (Source: *Facts at a Glance*, Child Trends, Washington, D.C., 1994).

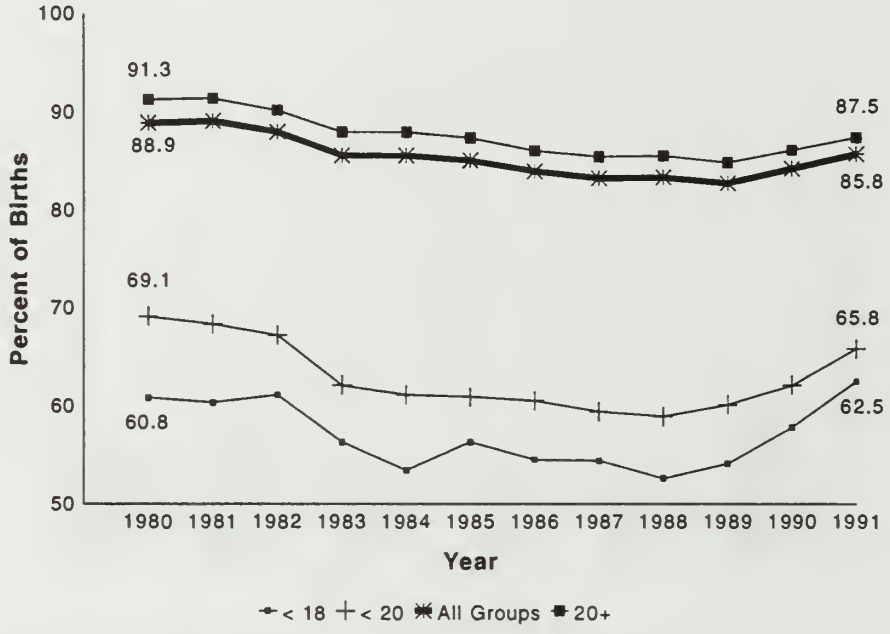
- In 1970, birth rates were at their highest level in the last 21 years (measured in five year intervals): 80.2 births per 1,000 Massachusetts resident women aged 15-44 and 39.1 births per 1,000 women aged 15-19. By 1975 birth rates were the lowest in the past 21 years: 52.5 births per 1,000 women aged 15-44 and 29.3 births per 1,000 women aged 15-19.

- Birth rates among women of all ages increased throughout the 1980s, declining in 1991 to 59.5 births per 1,000 women, a decline of 4.2% from the 1990 rate. The teen birth rate declined 5.6% from 1990 to 1991, from 35.4 to 33.4 births per 1,000 teenage women.

Note: The birth rate for women ages 15-44 is calculated by dividing the number of births among women 15-44 by the number of women in the population ages 15-44, and multiplying the result by 1,000. The birth rate for women ages 15-19 is calculated similarly, using the number of births among women ages 15-19 and the number of women ages 15-19 in the population.

Trend in Percent of Births with First Trimester Registration for Prenatal Care by Mother's Age

Massachusetts: 1980 - 1991



Source: Registry of Vital Records and Statistics, MDPH, 1991

- First trimester registration for prenatal care varied with maternal age. Women less than 20 years old were less likely to receive prenatal care during their first trimester of pregnancy than were women over 20.

- In 1991, women 20 years old and over were 40.0% more likely to obtain first trimester prenatal care than women under 18 (87.5% vs. 62.5%) and 33% more likely to do so than women less than 20 years old (87.5% vs. 65.8%).

- Since 1980, there has been a small decline in the percentage with first trimester registration: 88.9% in 1980, 85.8% in 1991. A similar decline is noted among women less than 20: 69.1% in 1980, 65.8% in 1991. There has also been a small decline in the percentage of women older than 20 years who obtained first trimester care, from 91.3% in 1980 to 87.5% in 1990.

- There has been a steady increase among women of all ages in the percent registering for first trimester prenatal care since 1988. This has been particularly true in the younger age groups. The percent of women < 18 who obtained first trimester care increased 18.8% from 1988 to 1991; for women < 20 the corresponding increase was 11.7%.

Adequacy of Prenatal Care by Mother's Race/Ethnicity and Age Massachusetts: 1991

Maternal Race/Ethnicity and Age	Adequacy of Prenatal Care					
	Adequate Care		Intermediate Care		Inadequate Care or No Care	
	N*	%	N*	%	N*	%
White** 20+ years	56,298	87.2	7,126	11.0	1,139	1.8
< 20 years	2,482	65.0	1,062	27.8	272	7.1
Black** 20+ years	3,628	64.3	1,480	26.2	539	9.5
< 20 years	509	48.4	409	38.9	134	12.7
Hispanic 20+ years	4,643	69.8	1,598	24.0	409	6.2
< 20 years	1,053	60.4	566	32.5	124	7.1
Asian** 20+ years	2,260	73.2	693	22.4	135	4.4
< 20 years	79	40.9	89	46.1	25	13.0
Other** 20+ years	511	65.0	225	28.6	50	6.4
< 20 years	80	55.2	57	39.3	8	5.5
TOTAL 20+ years	67,340	83.4	11,122	13.8	2,272	2.8
< 20 years	4,203	60.5	2,183	31.4	563	8.1

* Births with known adequacy, maternal race and age N= 87,683

** non-Hispanic

Source: Registry of Vital Records and Statistics, MDPH, 1991

Adequacy of prenatal care is determined according to the Kessner Index which considers the trimester of pregnancy in which prenatal care began and the number of prenatal visits. Adequate care requires first trimester care and at least 9 prenatal visits; intermediate care requires first or second trimester care and at least 5 visits; inadequate care consists of four or fewer prenatal visits regardless of trimester in which care began (See Glossary for Kessner Index).

- Among infants born in 1991, 81.6% were born to women who had adequate prenatal care, 15.2% were born to women who had intermediate care, and 3.2% were born to women who had inadequate or no prenatal care.

- Among the 2,835 infants whose mothers received inadequate or no prenatal care, 49.8% were white, 23.7% were black, 18.8% were Hispanic and 5.6% were Asian.

- Among all race/ethnicity groups, young mothers (< 20 years old) had lower percentages of adequate prenatal care and higher percentages of inadequate and no prenatal care than women over age 20.

Births by Mother's Age and Race/Ethnicity
Massachusetts: 1991

Race/Ethnicity	Births to Teenagers				TOTAL Births	
	< 18 years		< 20 years			
	N	%	N	%	N	%
White*	1,217	46.0	3,836	54.7	68,596	77.8
Black*	451	17.1	1,059	15.1	6,734	7.6
Hispanic	836	31.6	1,769	25.2	8,476	9.6
Asian*	77	2.9	194	2.8	3,289	3.7
Other*	58	2.2	145	2.1	943	1.1
Unknown	4	---	11	0.1	138	0.2
TOTAL	2,643	100.0	7,014	100.0	88,176	100.0

* non-Hispanic
Source: Registry of Vital Records and Statistics, MDPH, 1991

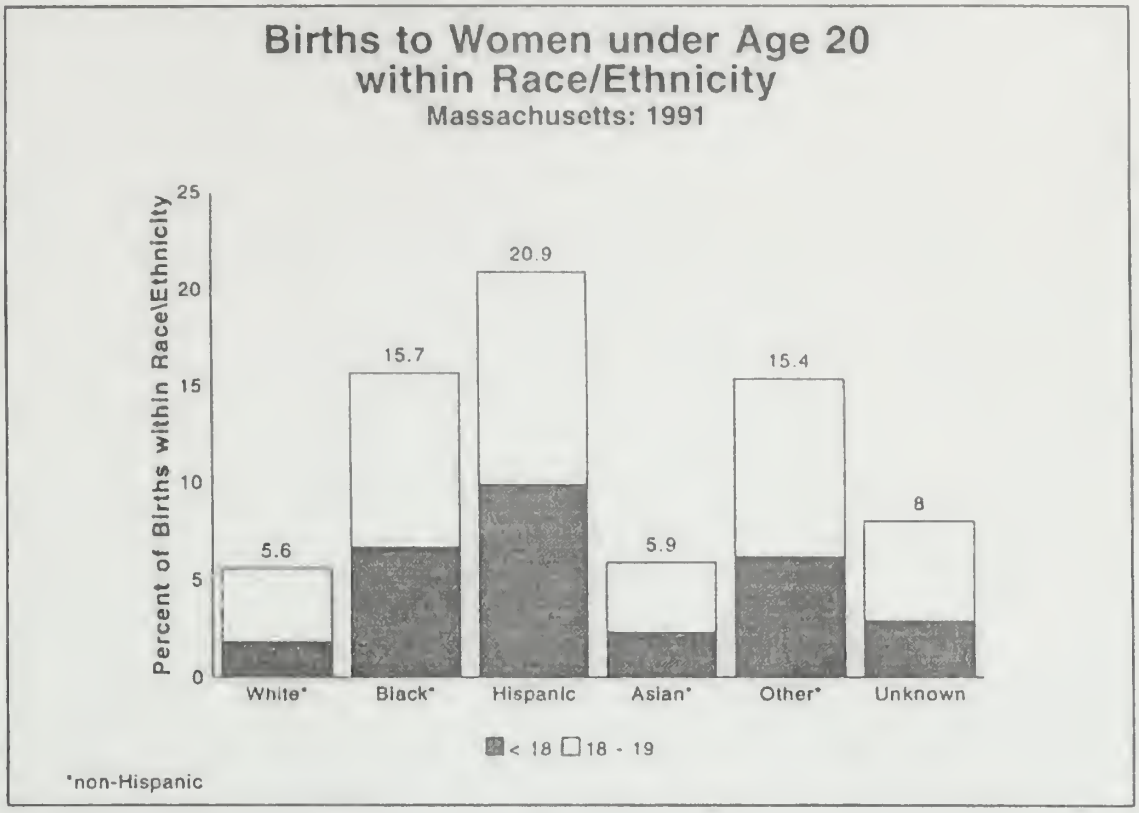
- More than three of every four infants born in 1991 were white non-Hispanic. Nearly one of every 10 infants was Hispanic, 7.6% were black non-Hispanic and 3.7% were Asian.

  -- Of the 6,734 black non-Hispanic births, 1,046 (15.5%) were of Haitian ancestry (data not shown).

  -- Of the 8,476 Hispanic births, 4,907 (57.9%) were of Puerto Rican ancestry, 1,316 (15.5%) were of Dominican ancestry, and 977 (11.5%) were of Central American ancestry (data not shown).

  -- Of the 3,289 Asian births, 966 (29.4%) were of Chinese ancestry, 594 (18.1%) were of Cambodian ancestry, and 735 (22.3%) were of other Southeast Asian ancestry (data not shown).

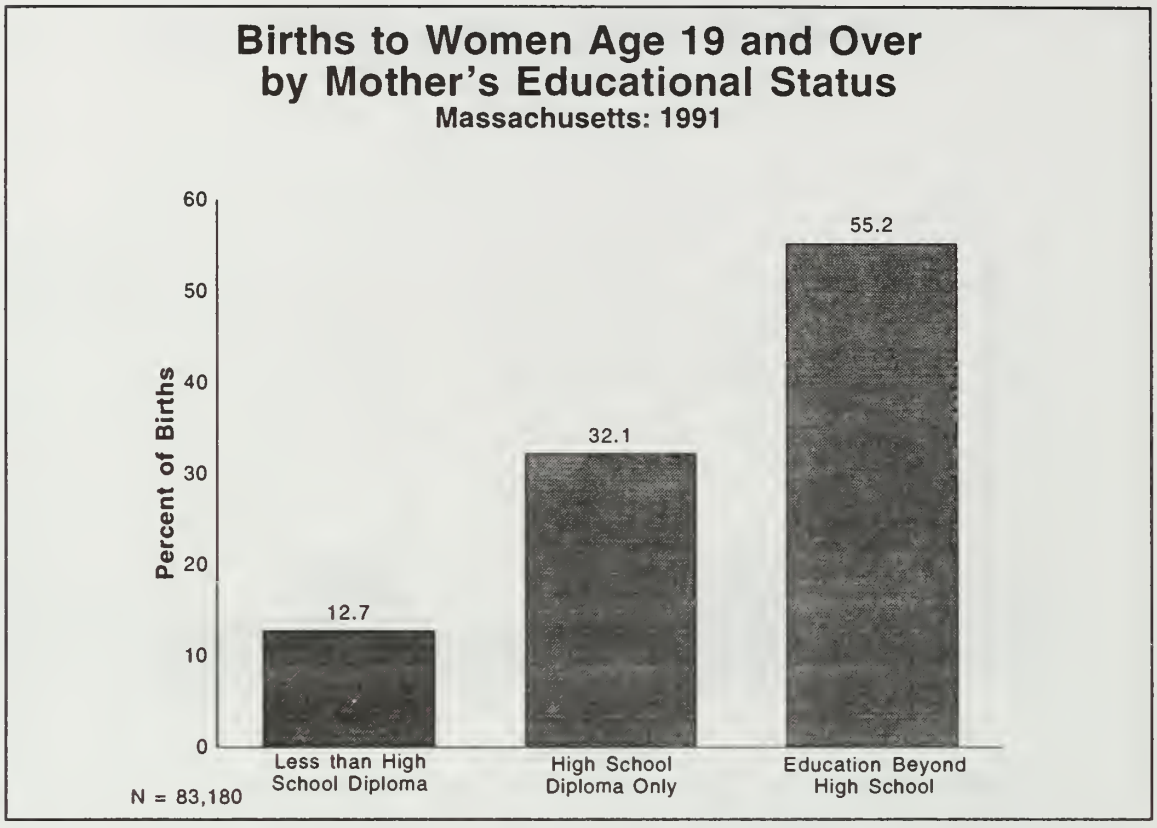
- Over half the infants born to teenage women (< 20 years old) were white non-Hispanic, a quarter of the infants were born to Hispanic teenagers and 15.1% were born to black non-Hispanic teenage women.



Source: Registry of Vital Records and Statistics, MDPH, 1991

- The incidence of teen births varies greatly by race/ethnicity. While only 5.6% of births to white non-Hispanics were to teens, 20.9% of Hispanic births were to teens. Among black non-Hispanic births, 15.7% were to teenage women and 5.9% of Asian births were to teens.

- The variation in the incidence of teen births by race/ethnicity is even more pronounced for young (less than 18 years old) teen mothers. While only 1.8% of births to white non-Hispanics were to young teens, 6.7% of black, non-Hispanic births and 9.9% of Hispanic births were to young teens.



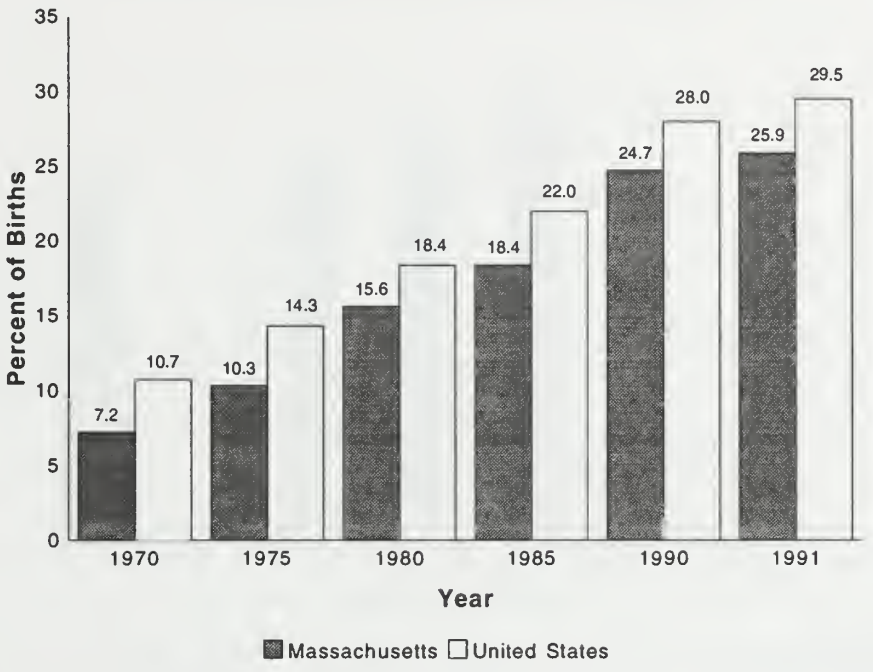
Source: Registry of Vital Records and Statistics, MDPH, 1991

- In 1991, 10,568 infants were born to adult women (age 19 and over) who had not yet graduated from high school. 26,693 infants of adult women had mothers who had completed high school, and 45,919 infants had mothers with some post-secondary education.

- Among infants born to women age 18 or less, 32% (1,447) had mothers who had completed less than the 10th grade, 45.3% (2,051) had mothers who completed the 10th or 11th grade, and 22.7% (1,027) had mothers who had finished high school (data not shown).

Percent of Births to Women Who Were Not Married

Massachusetts and United States: 1970 - 1991



Source: Registry of Vital Records and Statistics, MDPH, 1970-1991 and National Center for Health Statistics, 1970-1991

- In 1991, just over one of every four infants (22,852) was born to a mother who was not married. This closely parallels the national trend although the percentage of unmarried women giving birth in Massachusetts is consistently lower than the national percentage.

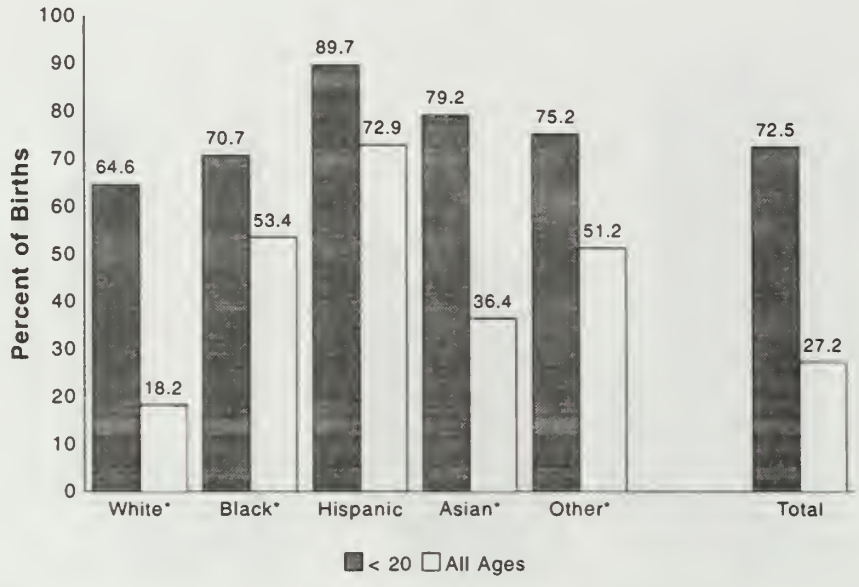
- In 1970, births to unmarried women age 20 and older accounted for only 4.0% of all births. By 1991, they accounted for 19.1% of all births, an increase of 378%. From 1980 to 1991 the percent of births to unmarried women 20 and over increased 99% (data not shown).

- In 1991, 14% of white non-Hispanic women age 20 and older who gave birth were not married. Among black, non-Hispanic and Hispanic women age 20 and older, 58% and 53%, respectively, were not married.

- The percent of births to unmarried teens grew much more slowly than the percentage to women 20 and over. From 1980 to 1991 the percent of births to unmarried teens grew 11.5% (data not shown).

Percent of Births with Publicly Funded Prenatal Care by Mother's Age within Race/Ethnicity

Massachusetts: 1991



N = 23,549
* non-Hispanic

Source: Registry of Vital Records and Statistics, MDPH, 1991

- In 1991, 27.2% of all women giving birth had their prenatal care paid for by public entitlement programs, primarily Medicaid and Healthy Start (a state-funded program for low-income women). Almost three quarters of women less than 20 years old who gave birth in 1991 had their prenatal care paid for by public funds.

- There was substantial variation within race/ethnicity groups in the percent of teens who received publicly funded prenatal care and the percent of women of all ages whose prenatal care was paid for by public funds. The greatest contrast was between white non-Hispanic teens, 64.6% of whom had publicly funded care, and white non-Hispanic women of all ages, 18.2% of whom had publicly funded care.

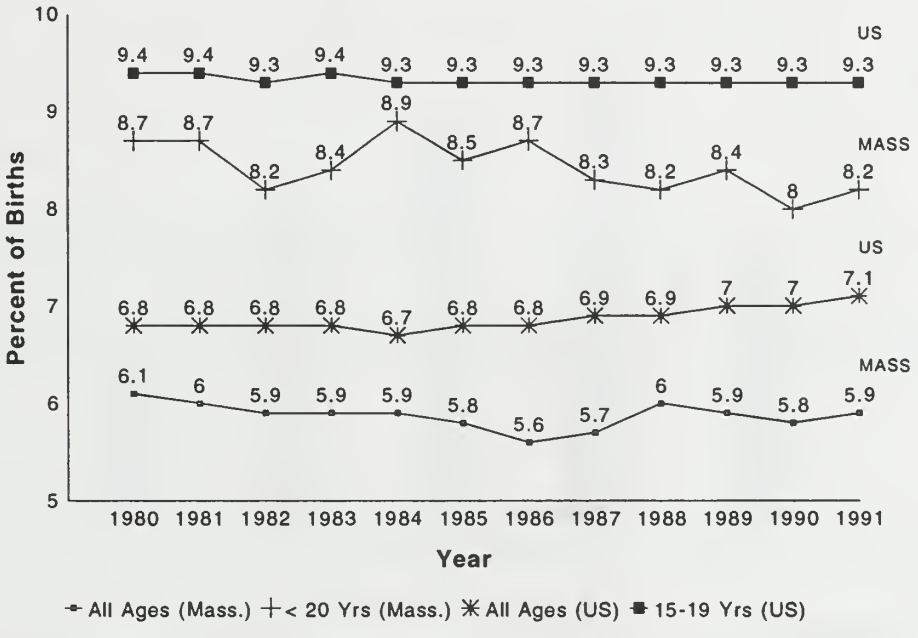
- Hispanic women had the highest percentage of publicly funded prenatal care, 72.9%. The percentage of publicly funded prenatal care was even higher among Hispanic teenagers (89.7%).

- Over half of black non-Hispanic women had publicly funded prenatal care; 70.7% of black non-Hispanic teens had their prenatal care paid for by public funds.

- Asian teens were over twice as likely as Asian women of all ages to have their prenatal care paid for by public funds (79.2% vs. 36.4%).

Trend in Percent of Low Birthweight Infants by Mother's Age

Massachusetts and United States: 1980-1991



Source: Registry of Vital Records and Statistics, MDPH, 1980-1991 and National Center for Health Statistics, 1980-1991

- Infants weighing less than 2,500 grams (5.5 pounds) at birth are at increased risk for mortality as well as for a variety of acute and chronic medical conditions.

- Massachusetts low birthweight levels for both teens and women of all ages have been consistently lower than national levels and this difference has increased in recent years.

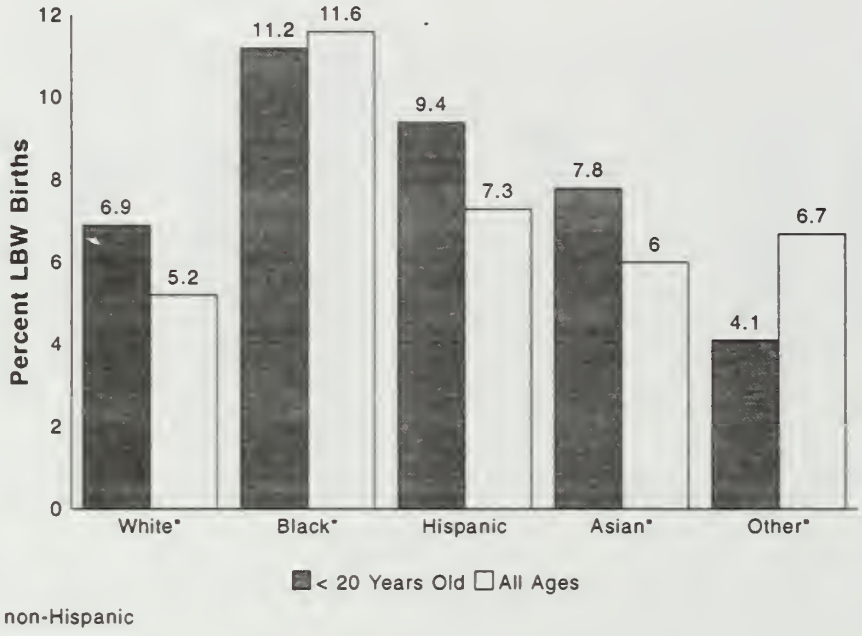
- In 1991, 5,200 infants had low birthweight. The incidence of low birthweight among women of all ages declined 20.3% from 1970 to 1991. Most of that change took place between 1970 and 1980 (data not shown).

- The percentage of low birthweight among infants born to teen mothers less than age 20 averages about 40% higher than the percentage of low birthweight among all infants.

- In 1991, the percent of low birthweight infants born to teenagers less than age 18 was 9.6% (data not shown).

Percent of Low Birthweight Infants by Mother's Age within Race/Ethnicity

Massachusetts: 1991



Source: Registry of Vital Records and Statistics, MDPH, 1991

- Women under age 20 had higher percentages of low birthweight infants than women over age 20, except among black non-Hispanic women and women of Other race/ethnicity.

- Black non-Hispanic women had the highest percentage of low birthweight births overall (11.6%), among Black non-Hispanic teenagers it was 11.2%.

- Women younger than age 18 had higher percentages of low birthweight infants than women 18-19 years old as well as women over 20 years old. Among infants born to white non-Hispanic women less than age 18, 7.7% were low birthweight; among black non-Hispanics, 11.3%; Hispanics, 11.6%; Asians, 11.8%; and Other race/ethnicity, 5.2% (data not shown).

- The percentages of low birthweight infants born to women over 20 years old by race/ethnicity were: white non-Hispanic, 5.0%; black non-Hispanic, 11.6%; Hispanic, 6.7%; Asian, 6.0%; and Other race/ethnicity, 7.2% (data not shown).

Percent of Premature Births within Race/Ethnicity by Mother's Age Massachusetts: 1991

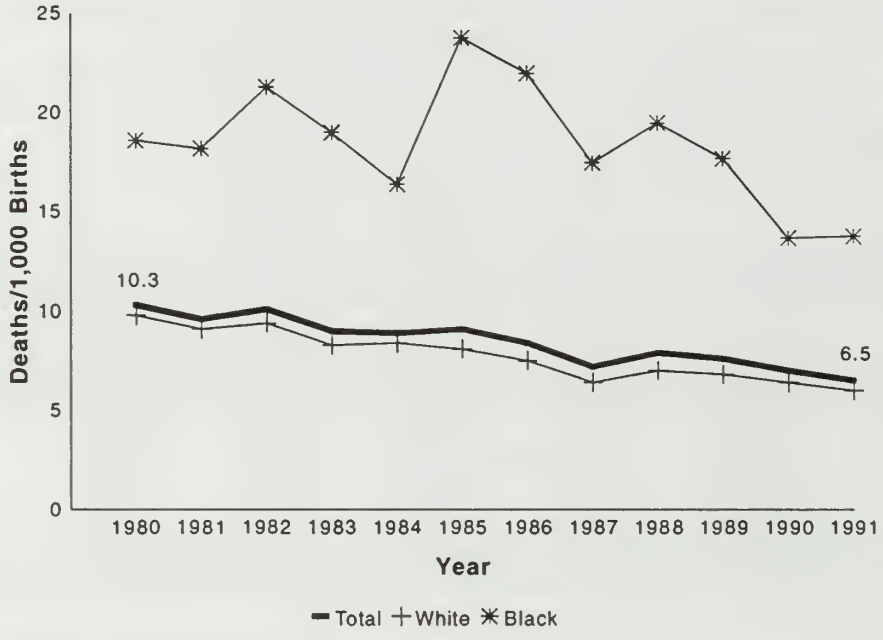
Mother's Age	Number and Percent of Premature Births by Race/Ethnicity										TOTAL	
	White*		Black*		Hispanic		Asian*		Other*			
	#	%	#	%	#	%	#	%	#	%	#	%
< 18 years	88	7.3	64	14.3	96	11.5	11	14.5	5	8.6	264	10.0
18-19 years	194	7.4	70	11.6	79	8.5	5	4.3	6	6.9	354	8.2
TOTAL < 20	292	7.4	134	12.7	175	9.9	16	8.3	11	7.6	628	8.9
20+ years	3,836	5.9	729	12.9	548	8.2	191	6.2	56	7.0	5,360	6.6
TOTAL	4,128	6.0	863	12.9	723	8.6	207	6.3	67	7.1	5,988	6.8

* non-Hispanic
Source: Registry of Vital Records and Statistics, MDPH, 1991

- Infants born prematurely (less than 37 weeks gestation) are at increased risk for serious adverse outcomes such as low birthweight, respiratory distress syndrome and immature liver leading to hyperbilirubinemia.
- Of all births in 1991, 6.8% were premature.
- 70% of all premature births in 1991 were to white non-Hispanic women.
- Prematurity varied within race/ethnicity. Black non-Hispanics were more than twice as likely as white non-Hispanics to have a premature birth (12.9% vs 6.0%). Hispanics were 43% more likely to have a premature infant than white non-Hispanics.
- The prematurity rates among young teens (less than 18 years old) were higher than among adult women.

Trend in Infant Mortality Rates by Race*

Massachusetts: 1980-1991



*Hispanic persons may be of any race.

Source: Registry of Vital Records and Statistics, MDPH, 1980-1991

- The 1991 national infant mortality rate was 8.9 deaths per 1,000 live births, nearly 37% higher than the Massachusetts rate of 6.5. (Source: *Advance Report of Final Mortality Statistics, 1991*, National Center for Health Statistics, Hyattsville, MD, 1993).

- Overall infant mortality dropped nearly 37% from 1980 to 1991, from a rate of 10.3 infant deaths per 1,000 live births to 6.5. However, the decline was not consistent across all racial groups.

- Black infant mortality declined 42% from a high of 23.8 deaths per 1,000 live births in 1985, but the black rate remained consistently higher than the white rate.

Note: Infant mortality is defined as the death of a child under one year of age (less than 365 days old). The infant mortality rate per 1,000 live births is calculated by dividing the number of infant deaths in a year by the number of births in that year and multiplying the result by 1,000. Hispanic origin could not be identified on the Massachusetts death certificate before 1989; thus, Hispanic trend data are not available. Most Hispanics were included in the race category of white.

Infant, Neonatal and Postneonatal Mortality by Race/Ethnicity Massachusetts: 1991

Race/Ethnicity	Infant Deaths		Neonatal Deaths		Postneonatal Deaths	
	Number	Rate	Number	Rate	Number	Rate
White*	380	5.5	265	3.9	115	1.6
Black*	101	15.0	72	10.7	29	4.3
Hispanic	80	9.4	53	6.2	27	3.2
Asian*	14	4.2	10	3.0	4	1.2
Other*	1	---	0	---	1	---
TOTAL	576	6.5	400	4.5	176	2.0

* non-Hispanic
Source: Registry of Vital Records and Statistics, MDPH, 1991

- Nearly two thirds of all infant deaths occurred among white non-Hispanics. Black non-Hispanics accounted for 17.5% of all infant deaths, Hispanics 13.9% and Asians 2.4%.

- The infant mortality rate for black non-Hispanics was almost three times as high as for white non-Hispanics (15.0 deaths per 1,000 live births vs. 5.5). Nationally the black non-Hispanic rate was closer to twice as high as the white non-Hispanic rate (17.5 vs. 7.1, respectively). The Massachusetts overall infant mortality rate (6.5%) compares favorably to the U.S. overall infant mortality rate (8.9%) (Data from *Advance Report of Final Mortality Statistics, 1991*, National Center for Health Statistics, Hyattsville, MD, 1993).

- The Massachusetts infant mortality rate for Hispanics was 9.4, while the white non-Hispanic rate was 5.5. The corresponding national rates for Hispanics (7.5) and white non-Hispanics (7.1) were much closer together than the Massachusetts rates (op. cit.).

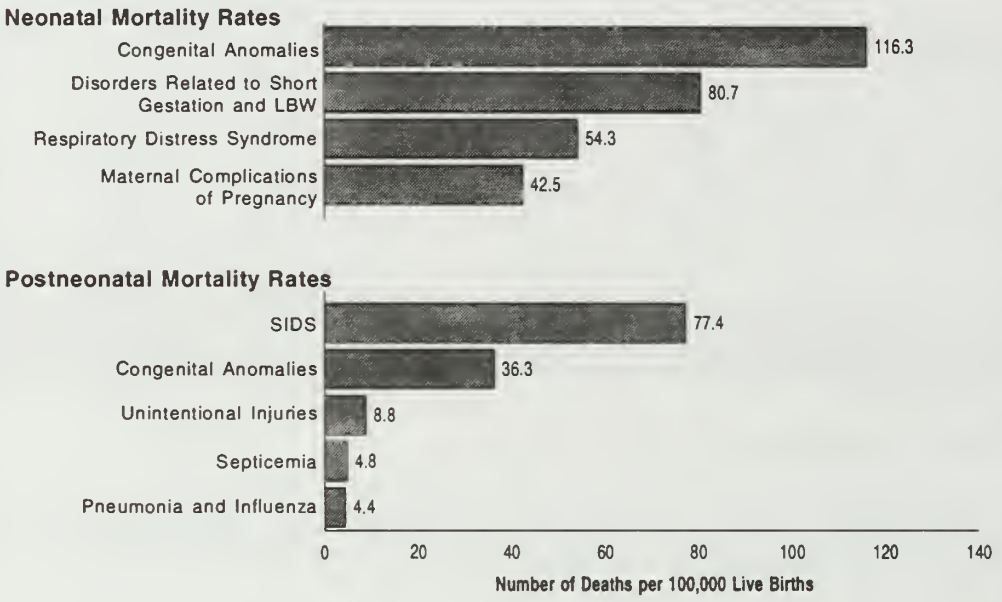
- Black non-Hispanic neonatal mortality was 174% higher than white non-Hispanic neonatal mortality, and black postneonatal mortality was 169% higher than the white non-Hispanic rate. Neonatal and postneonatal mortality rates were 159% and 100% higher than the corresponding white non-Hispanic rates.

- The postneonatal mortality rate for black non-Hispanics (4.3) was over a third higher than the next nearest rate (Hispanics, 3.2).

NOTE: Infant Mortality Rate (IMR) is the death rate among infants less than one year old, per 1,000 live births. Neonatal Mortality Rate (NMR) is the death rate among infants less than 28 days old, per 1,000 live births. Postneonatal Mortality Rate (PNMR) is the death rate among infants 28 - 364 days old, per 1,000 live births. Calculations based on fewer than five events are excluded.

Neonatal and Postneonatal Mortality Rates by Leading Causes of Death

Massachusetts: 1989-1991



Source: Registry of Vital Records and Statistics, MDPH, 1989-1991

- The leading causes of death for neonatal and postneonatal mortality were the same in Massachusetts as in the nation. Except for maternal complications of pregnancy, the Massachusetts rates were all lower than the national rates. (Source: *Child Health USA '92*, US Department of Health and Human Services, DHHS Pub No HRSA-MCH-92-6, 1993).

- Congenital anomalies were the leading cause of neonatal death, with a rate 44% higher than the next leading cause.

- The four leading causes of neonatal mortality accounted for just under two thirds of all neonatal death (data not shown).

- The leading cause of postneonatal mortality, Sudden Infant Death Syndrome (SIDS), had a rate more than twice as high as that of the next leading cause.

- The five leading causes of postneonatal mortality accounted for about two thirds of all postneonatal mortality (data not shown).

Part Four

Child and Adolescent Health Status and Behavior

Many determinants of well-being during childhood and adolescence are linked to the prevention of illness and injury and the promotion of a healthy lifestyle. Access to health care and a nurturing environment are necessary supports for development.

Part Four considers the state of child and adolescent well-being by examining the general categories of morbidity, mortality, and behavior and health risks.

Child and Adolescent Morbidity

This section presents data on the occurrence of ill health, injury, and maltreatment among children and adolescents and on some preventive health care programs.

Child and Adolescent Mortality

This section presents data on child and adolescent mortality in terms of absolute numbers of deaths, the leading causes of death, injuries (intentional and unintentional), and violent death, specifically homicide and suicide. Many of the deaths to children and adolescents are preventable tragedies, especially those attributable to injury and violent death.

Child and Adolescent Behavior and Health Risks

This section presents data on how children's well-being is affected by their own behavior choices as well as by their family's behavior and circumstances. Data on adolescent risk-taking behavior and some specific outcomes of risk-taking such as sexually transmitted diseases are also presented.

Newborn Screening for Inborn Errors of Metabolism, Hemoglobinopathies and Toxoplasmosis Massachusetts: 1991

Condition	Number with Positive Results	Number in Treatment
Phenylketonuria (classical PKU)	5	5
Hypothyroidism	25	25
Galactosemia	1	1
Maple Syrup Urine Disease	0	--
Homocystinuria	2	2
Hyperphenylalaninemia	3	3
Congenital Adrenal Hyperplasia	3	3
Hemoglobinopathies	50	50
Toxoplasmosis	7	7
TOTAL Number of Newborns Screened in 1991: 89,605		

Source: New England Regional Newborn Screening Program, State Laboratory Institute, MDPH

Number in Treatment reflects the number of infants with the condition who began treatment within the recommended interval. ***Total Number of Newborns Screened*** represents Massachusetts occurrence births, and therefore includes both Massachusetts resident and nonresident births. The total number of births which occurred in Massachusetts in 1991 was 89,610.

The purpose of the Newborn Screening Program is to test all newborns for nine disorders. Although the chances that a baby will have one of the disorders are small, the consequences of untreated disease include mental retardation, physical disabilities including blindness, deafness, and death.

- In 1991, nearly 100% (99.99%) of all infants born in Massachusetts were screened for seven inborn errors of metabolism, as well as hemoglobinopathies including sickle cell anemia, and toxoplasmosis infection. All children identified as having a disorder began treatment within the medically recommended time interval.

Childhood Lead Poisoning
Massachusetts: FY 1989 - FY 1992

	Fiscal Year			
	1989	1990	1991	1992
Number of Tests	218,766	231,494	289,599	302,008
Percent Screened	44.6	51.0	63.8	69.1
Number Poisoned	776	846	869	767
Incidence Rate per 1,000	3.5	3.7	3.0	2.5

Source: Childhood Lead Poisoning Prevention Program, MDPH, 1989-1992

Number of Tests: The Number of Tests is the total number of lead screening tests performed. This number is approximately 10-15% higher than the number of children tested because more than one test is submitted for some children.
Percent Screened: Percent Screened is determined by dividing the number of tests by the number of children age 6 months up to 6 years in the population. The 1989 denominator is the sum of all Massachusetts resident births for the years 1983-1988; for 1990, 1991 and 1992 the denominators are from the 1990 U.S Census and interpolations.
Number Poisoned: From 1988-1992, lead poisoning was defined as a blood lead level of 25 µg/dl and erythrocyte protoporphyrin (EP) of 35; as of June 1, 1993 lead poisoning is defined as a blood lead level of 20 µg/dl regardless of the EP value.
Incidence Rate: The Incidence Rate reflects the number of children with lead poisoning per 1,000 children. The rate is determined by dividing the number of children with screenings indicating lead poisoning by the total number of screening tests and multiplying by 1,000.

Lead poisoning during childhood has been associated with impaired intelligence and neurological development, and decreased growth. Massachusetts public health regulations require all children between the ages of six months and six years to have annual screenings for elevated blood lead levels. More frequent testing is recommended for children at high risk for lead poisoning, including those who in live older, dilapidated homes or areas where there is demolition and rebuilding, children with family members who work in lead industries, and children who live in areas with high rates of lead poisoning. Evidence of lead screening is required for entry to day care and kindergarten.

- The percentage of children screened for lead poisoning has increased each year since 1989. Currently two thirds of all Massachusetts children age 6 months through 6 years are screened annually.

- In 1992, 767 children tested positive for lead poisoning. Both the number of children with lead poisoning and the incidence rate were lower than in the last four years.

- During the 1992-1993 school year, 93.4% (96,531) of children over two years of age who were enrolled in day care, 90.1% (8,369) of children in Head Start programs; and 89.6% (75,995) of children in kindergarten had been screened for lead poisoning (Source: *Annual Survey of Immunizations Levels*, Massachusetts Immunization Program, MDPH, 1993).

Immunization Levels among Children by Educational Setting Massachusetts: 1992-1993 School Year

Immunization Status	Educational Setting or School Grade							
	Day Care		Head Start		Kindergarten		Grade 7	
	Number	%	Number	%	Number	%	Number	%
TOTAL enrolled	102,730		9,406		84,734		71,429	
4 doses of DTP	100,968	98.3	9,211	99.1	83,073	98.0	---	
3 doses of Polio	101,350	98.7	9,257	99.6	83,431	98.5	---	
1 dose of MMR	101,519	98.8	9,271	99.8	83,548	98.6	---	
1 dose of Hib	98,775	96.2	---		---		---	
One Dose MMR	---		---		---		71,073	99.5
Two Doses MMR	---		---		---		66,551	93.1

Source: Massachusetts Immunization Program, MDPH, 1993

Total enrolled: Total enrolled refers to children in schools which had responded to the immunization survey as of the survey closure date. Counts include 96.6% of all day care programs, 98.3% of all Head Start programs, 99.5% of all kindergartens, and 99.8% of all schools with grade seven. Among day care students, the count refers to children 2 years and older.
Immunization Status: According to the recommended schedule, by age 15-18 months all children (who do not have medical or religious exemptions) should receive four doses of DTP, three doses of polio vaccine, one dose of MMR and complete Hib dose; at or before school entry (age 4-5) one additional dose of DTP and of polio vaccine should be received. A second dose of MMR is recommended by seventh grade.
DTP= Diphtheria and tetanus toxoids with pertussis vaccine
Polio= Poliomyelitis vaccine
MMR= Measles-mumps-rubella vaccine
Hib= Haemophilus influenzae type B vaccine

- During the 1992-1993 school year, most children enrolled in day care programs, Head Start, and kindergarten were up-to-date for recommended immunizations. The percentage of children immunized has remained over ninety percent for the past five years (data not shown).

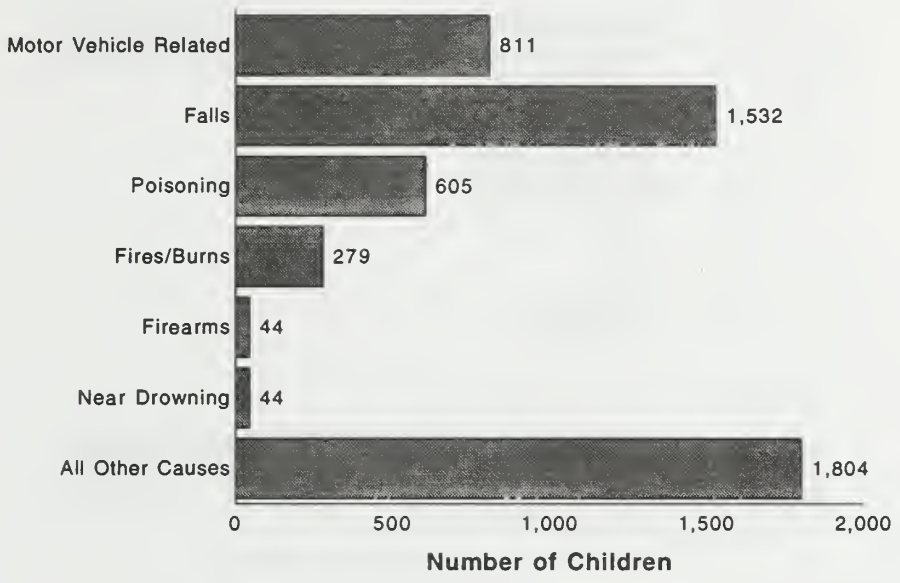
- Over 5,000 children in day care, Head Start, and kindergarten had not completed the schedule of age-appropriate immunizations. Over 7% of seventh graders (4,878) had not received a second dose of measles, mumps and rubella vaccine.

- A retrospective survey of children entering kindergarten during the 1992-1993 school year revealed that only 69% had completed the full recommended immunization schedule by age two (Source: Bureau of Communicable Disease Control, MDPH).

- In 1993, there were 312 cases of pertussis among children less than 20 years old (89 among children less than one year old, 17 among children age 1-4, 33 among children age 5-9, 173 among children age 10-19). There were 12 cases of measles among children less than two years old (Source: Bureau of Communicable Disease Control, MDPH).

Injury-Related Hospital Discharges of Children Ages 0-14

Massachusetts: 1989



N = 5,119

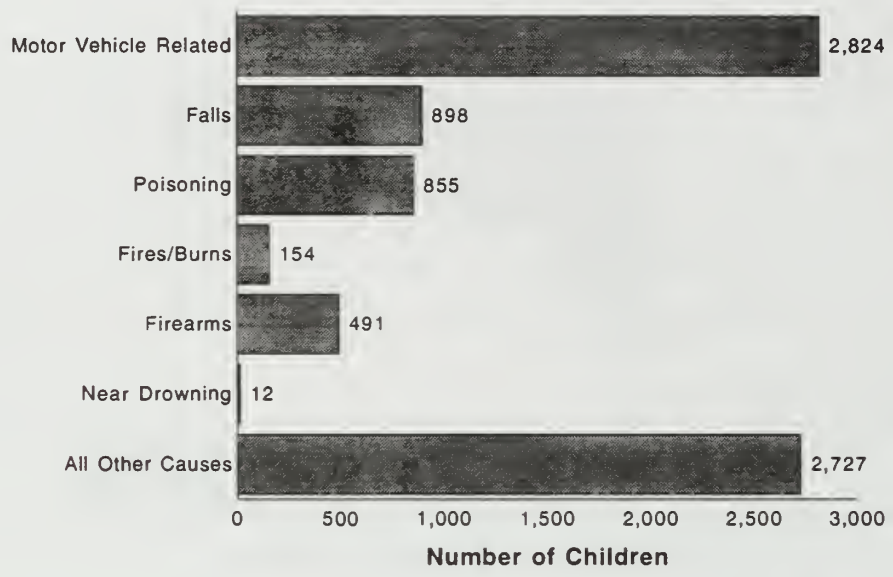
Source: *Injuries in Massachusetts An Overview of Causes and Costs*, MDPH, 1992

- In 1989, there were 5,119 nonfatal acute care hospital discharges of children ages 0-14 years as the result of injuries.
- Children were most frequently hospitalized due to injuries from falls (29.9%), followed by injuries due to motor vehicle crashes (15.8%) and poisonings (11.8%)

NOTE: "1989" represents an average of three years of data, 1988-1990.

Injury-Related Hospital Discharges of Youths Ages 15-24

Massachusetts: 1989



N = 7,961

Source: *Injuries in Massachusetts An Overview of Causes and Costs*, MDPH, 1992

- In 1989, there were 7,961 nonfatal acute care hospital discharges of youth ages 15-24 years as the result of injuries.
- Young people were most frequently hospitalized due to injuries from motor vehicle crashes (35.5%), followed by injuries due to falls, (11.3%) and poisonings (10.7%).
- Firearm injuries accounted for 6.2% of injury-related hospitalizations among young people.

NOTE: "1989" represents an average of three years of data, 1988-1990.

Calls to Poison Center by Age of Person Exposed to Poison Massachusetts: 1991

Age of Person Exposed to Poison	TOTAL Calls	Percent of All Calls
less than 1 year	3,576	8.8
1 year	9,164	22.6
2 years	9,147	22.5
3 years	4,187	10.3
4 years	1,547	3.8
5 years	844	2.0
6-12 years	2,040	5.0
13-19 years	2,129	5.2
20+ years	7,993	19.7
TOTAL	40,627*	100.0

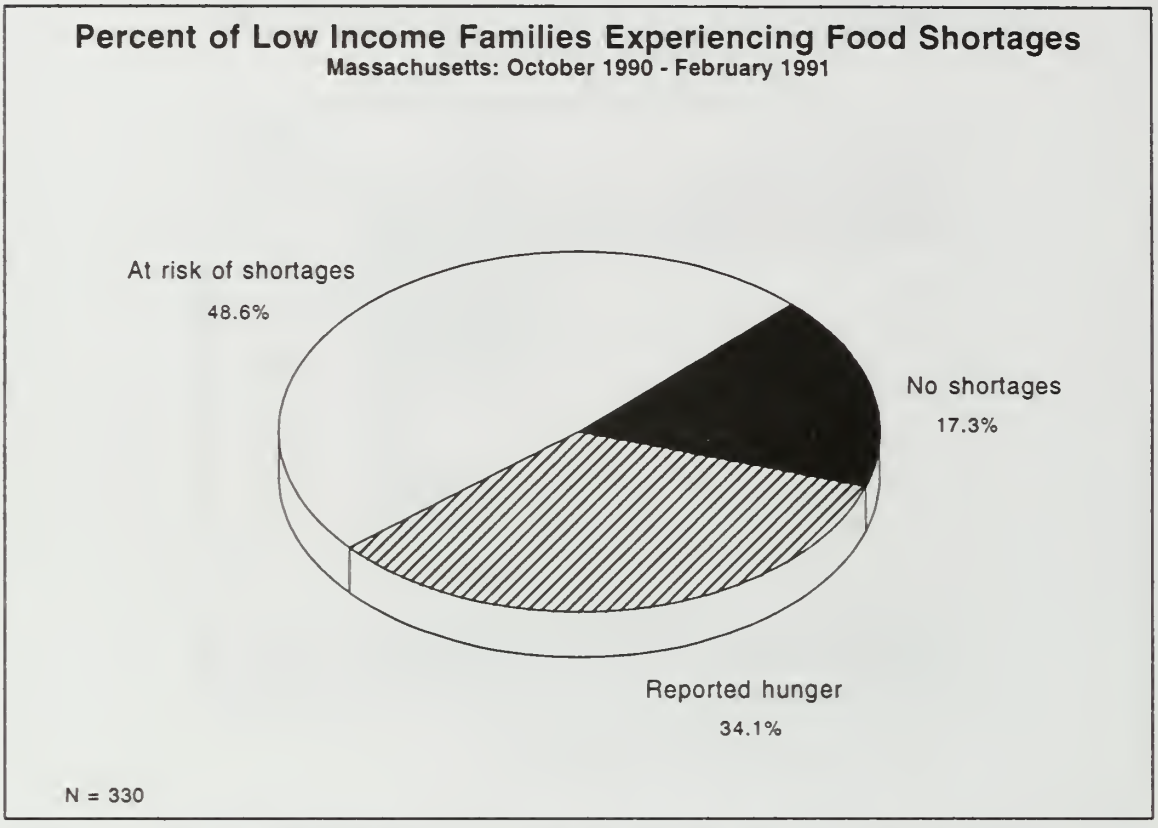
* does not include 1,023 calls not classified by age
Source: Massachusetts Poison Control System, 1992

The Massachusetts Poison Control System, the designated statewide poison information center for the Commonwealth, provides telephone assistance and expertise in the medical diagnosis and management of poisoning cases. Poison centers can be an effective means of decreasing hospital visits for pediatric poisoning. It has been estimated that, if no poison center existed, 63% of suspected ingestions would self refer to medical services as opposed to 13% self referral and 10% poison center referral to medical services when a poison center exists.

- Young children are at particular risk of unintentional poisoning. Children age two years or younger accounted for 21,887 poisoning calls, almost 54% of the total 40,627 calls, to the Massachusetts Poison Control System in 1991. The peak age group for frequency of calls to the Poison Center was children between 1-3 years of age.

- Most calls came from the general public; 13% (5,670 calls) came from health professionals (data not shown).

- In 1991, 1,418 children under 20 years of age were discharged from Massachusetts hospitals with a principal diagnosis of poisoning. Almost one third (439) of these hospitalizations occurred to children under 6 years of age, 4% (62) to children ages 6-12, and 65% (917) to teens ages 13-19 (Source: Uniform Hospital Discharge Data Set, Massachusetts Rate Setting Commission, 1991) (data not shown).



Source: *Children are Hungry in Massachusetts*, Project Bread, MDPH, and Mass. Anti-Hunger Coalition, May 1991

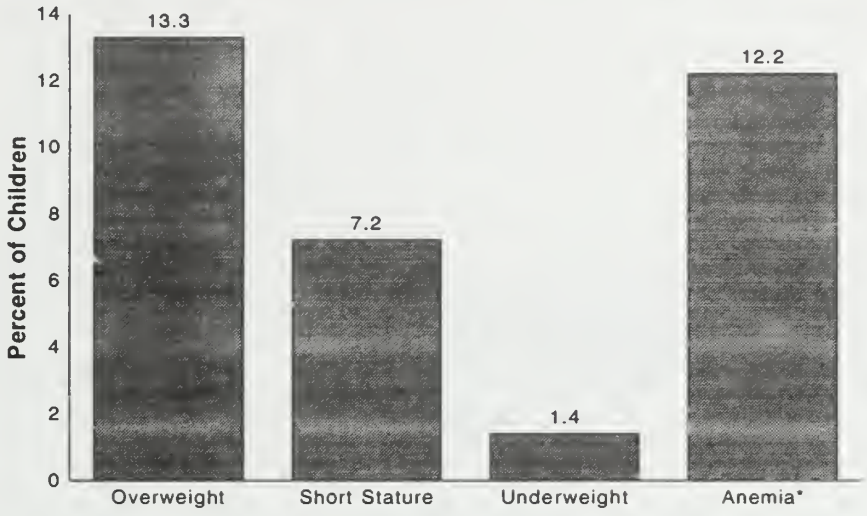
The Community Childhood Hunger Identification Project (CCHIP) conducted a statewide survey of hunger among a sample of 330 low-income families in Massachusetts from October, 1990 through February, 1991. Participants had incomes below 185% of the then-current poverty level, and at least one child under age 12. No homeless households were included in the study.

- Nearly 83% of the sample surveyed by CCHIP reported food shortages over the year prior to the study.
- 34.1% of surveyed families reported experiencing hunger.
- 48.6% of families surveyed reported food shortages that placed them at risk of hunger.

NOTE: The CCHIP questionnaire included eight key questions as indicators of hunger. The degree to which a family experienced hunger or was at risk to go hungry was measured by responses to questions on whether adults or children in the family needed to skip meals, reduce portion sizes, go to bed hungry, or the household lacked sufficient money to purchase adequate food within the 12 month period prior to the survey. "Hungry" families experienced five or more of the hunger indicators and those "at risk" experienced one to four of the eight indicators.

Overweight, Short Stature, Underweight and Anemia among Head Start Children

Massachusetts: FY1990



N = 3,181
*Hemoglobins and/or hematocrits were not available for all children, N=2,282

Source: *Nutrition Counts, FY 1990*, MDPH, 1990

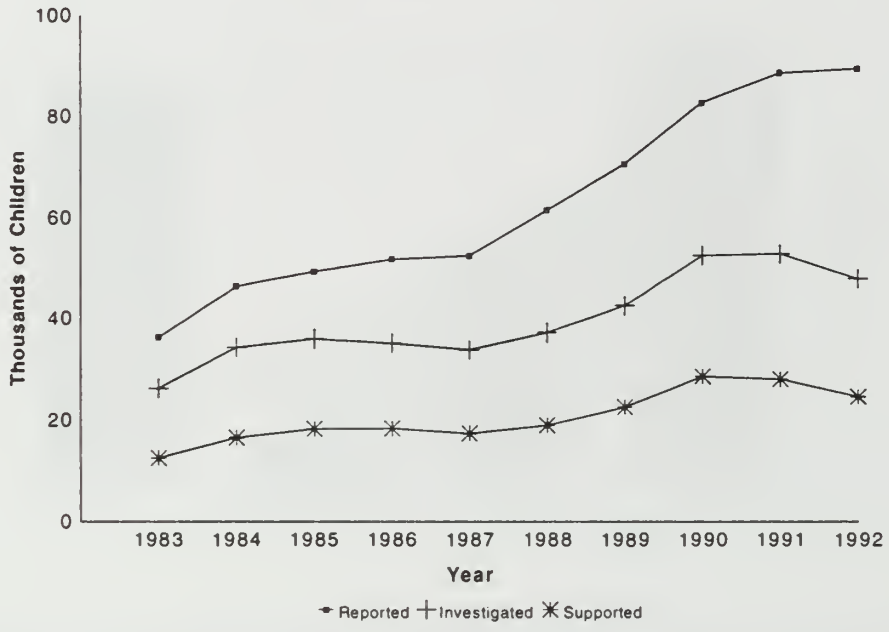
Overweight: High weight-for-height, > 95th percentile on National Center for Health Statistics (NCHS) growth charts.
Short Stature: Low height-for-age, < 5th percentile on NCHS growth charts.
Underweight: Low weight-for-height, < 5th percentile on NCHS growth charts.
Anemia: Anemia by either low hemoglobin or low hematocrit value (each child counted only once). For children age 1-1.9 years hemoglobin < 11.0 g/dl or hematocrit < 33%; for children 2-4.9 years hemoglobin < 11.2 g/dl or hematocrit < 34%; for children 5-7.9 years hemoglobin < 11.4 g/dl or hematocrit < 34.5% (Source: Centers for Disease Control, MMWR 38 (22):400-404, 1989).

- 423 (13.3%) of 3,181 children enrolled in Head Start programs were considered overweight (high weight for height). Overweight was highest among Hispanic children (17.4%), followed by blacks (12.8%) and whites (10.6%).

- 230 children (7.2%) had short stature. The prevalence of short stature varied across racial/ethnic groups with whites and Asians over-represented. While whites represented 42% of sample children, 63% of the children with short stature were white. Similarly, while Asians represented 3% of sample children, 6% of short-stature children were Asian. Only 1.4% of children sampled were underweight.

- Among the 2,282 children for whom hemoglobins and hematocrits were available, 278 (12.2%) had probable iron deficiency anemia. Black children had the highest prevalence of probable anemia, 17.4%, over twice that of white non-Hispanic children, 8.4%. Hispanic and Asian children had similar levels of probable anemia, 13.4% and 12.7%, respectively (data not shown).

DSS Counts of Maltreated Children: Reported, Investigated and with Supported Investigations
Massachusetts: 1983-1992



Source: *Child Maltreatment Statistics, January 1 - December 31, 1992*, Massachusetts Department of Social Services, 1993

- During 1992, the Department of Social Services (DSS) received reports alleging that 89,592 children had been maltreated. The number of children reported reflects each account of maltreatment of a child or children reported to DSS. Some children were reported more than once. The number of individual children for whom reports were filed was 61,412.

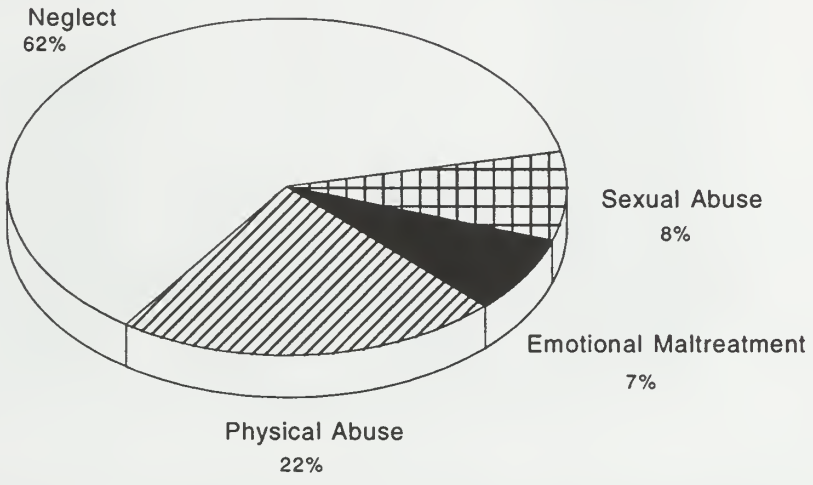
- Of the 89,592 allegations of maltreatment, 47,960 were investigated; this is a 9.8% decline from 1990 in the percent investigated.

- Upon investigation, 24,601 of the allegations were supported, confirming that the children had been maltreated. This is 51.3% of the total investigated (and 4,020 fewer than two years ago).

- During 1992, DSS opened cases on 12,115 families; 68% of these cases were opened as the result of supported investigations of maltreatment and 32% were opened as the result of voluntary requests for services, court ordered CHINS referrals (Children in Need of Services), and other referrals (data not shown).

Percent of Children with DSS Supported Cases by Type of Maltreatment

Massachusetts: 1992



N = 29,511. Percents do not add to 100 due to rounding.

Source: *Child Maltreatment Statistics, January 1 - December 31, 1992*, Massachusetts Department of Social Services, 1993

Supported cases refer to children who had an investigation that resulted in a finding of maltreatment. Children may have had more than one form of maltreatment. Counts, therefore, reflect instances of maltreatment not individual children.

- In 1992, neglect was the most prevalent type of maltreatment of children; 18,307 children were found to be neglected.

- 6,562 children were physically abused, 2,450 children were sexually abused and 2,192 children were found to be emotionally maltreated.

- Approximately equal numbers of boys and girls were neglected, physically abused, and emotionally maltreated. Seventy-two percent of sexually abused children were female (data not shown).

- More than half (56%) of all children with DSS supported cases were white, nearly 18% black, and almost 16% Hispanic. The remaining 10% were of Asian or other race/ethnicities (data not shown).

Hospital Discharges among Children under Age 20 with a Principal Diagnosis of Asthma by Age Group Massachusetts Hospitals: 1991

Age Group	Asthma Discharges #	Asthma Discharges %	As % of All Discharges* for Age Group
< 1 year	360	7.5	2.0
1-5 years	2,330	48.3	13.0
6-14 years	1,546	32.0	8.5
15-17 years	406	8.4	3.1
18-19 years	183	3.8	1.4
TOTAL < 20 years	4,825	100.0	6.0

* excludes discharges for newborn infants
Source: Uniform Hospital Discharge Data Set, Massachusetts Rate Setting Commission, 1991

- According to national hospital discharge data for 1991, the U.S. rate of inpatient hospital discharges with a primary diagnosis of asthma was 33.9 discharges per 10,000 children under age 15 (*Source: 1991 Summary: National Hospital Discharge Survey.* Advance data from vital and health statistics; no 227. NCHS, 1993). The 1991 Massachusetts rate was similar, 37.0 discharges per 10,000.

- In 1991, asthma diagnoses accounted for six percent of hospital discharges by Massachusetts children under age 20.

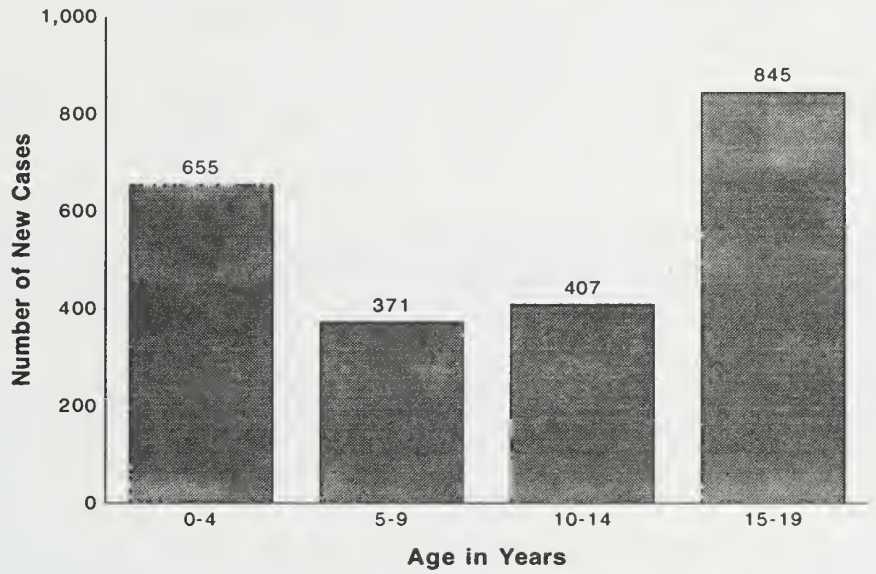
- More than half of these asthma-related hospitalizations occurred among children under age 6.

- Approximately 13% of hospital discharges among children age 1-5 years had a principal diagnosis of asthma.

- Asthma has been described as an "ambulatory care sensitive" condition, one which, with proper diagnosis, medication, equipment, education, and access to primary outpatient health care, can often be managed without hospitalization. A recent report on preventable hospitalizations found that over 40% of preventable asthma hospitalizations in 1989-1990 occurred among children under 18 (*Source: Preventable Hospitalization in Massachusetts,* Massachusetts Rate Setting Commission, 1994).

NOTE: Asthma diagnoses comprise ICD 9 codes 493.00-493.91. Data reflect discharges from Massachusetts hospitals by children who were Massachusetts residents.

Childhood Cancer Cases by Age
Massachusetts: 1982-1990



N = 2,278

Source: *Cancer Incidence in Massachusetts 1982-1990.* Massachusetts Cancer Registry, MDPH, 1993

- From 1982 through 1990, there were a total of 2,278 new cases of cancer among children less than 20 years of age reported to the Massachusetts Cancer Registry.

- Of the total, 53.5% of the reported cases were among boys and 46.5% of cases were among girls (data not shown).

- Children in age groups 0-4 years and 15-19 years experienced higher cancer rates (cases per 100,000 children in age group) than children age 5-14 years (data not shown).

- Leukemia was the leading type of childhood cancer and accounted for slightly more than 20% (518 cases) of the new childhood cancer cases between 1982 and 1990. Lymphoma was the second leading type of childhood cancer, with 16.6% (378 cases), brain and nervous systems cancers followed with 16.5% (376) of the new childhood cancer cases (data not shown).

Cumulative Number of Reported AIDS Cases among Children Ages 0-18 Massachusetts: January 1, 1994

	Current Mortality Status		
Age at Diagnosis	Alive	Dead	TOTAL AIDS Cases
< 6 years	58	67	125
6-12 years	8	13	21
TOTAL < 13 years	66	80	146
13-18 years	12	9	21
TOTAL 0-18 years	78	89	167

Source: AIDS Surveillance Program, Massachusetts Center for Disease Control, MDPH

- As of January 1, 1994, 167 Massachusetts children between 0 and 18 years of age have been reported to the U.S. Centers for Disease Control as meeting the diagnostic criteria for Acquired Immune Deficiency Syndrome (AIDS). An AIDS diagnosis represents the manifestation of certain severe conditions related to infection with the human immunodeficiency virus (HIV). Not all HIV-infected individuals meet the criteria for an AIDS diagnosis.

- Pediatric AIDS cases account for 1.8% of AIDS cases reported in Massachusetts; pediatric cases account for 1.4% of cases nationally (Source: Centers for Disease Control, Provisional Figures, January, 1 1994).

- Slightly less than half (46.7%) of the 167 children were alive as of January 1, 1994.

- Among the 146 children with AIDS who were less than 13 years old, 130 (89%) were exposed to HIV perinatally (data not shown).

- Of the reported AIDS cases among children less than 13 years old, 41.7% were black children, 29.5% were white children, 27.4% were Hispanic children, and 1.4% were children of other race/ethnicity (data not shown).

- 56.2% of the children less than 13 years of age were male and 43.8% were female (data not shown).

Reported Cases of HIV Seropositivity among Children under 18 Years Old by Age and Pediatric HIV Classification Massachusetts: January 1, 1994

Pediatric HIV Classification	TOTAL	Year of Child's Birth	
		Prior to 1989	After 1989
P0 Indeterminate HIV status	118	5*	113
P1 Asymptomatic HIV infection	28	8	20
P2 Symptomatic HIV infection	311	173	138
P3 HIV Exposure - Seroreverted	339	88	251
TOTAL	796	274	522

* Five children born prior to 1989 with "indeterminate" HIV status were lost to follow-up; their HIV status can not be determined.
Source: AIDS Surveillance Program - PSD Project, Massachusetts Center for Disease Control, MDPH

P0: Perinatally exposed children younger than 15 months of age who have antibody to HIV with indeterminate infection.
P1: Children who are HIV-infected but asymptomatic.
P2: Children who have symptomatic HIV-infection; includes those diagnosed with AIDS and others who, although sick, do not meet the diagnostic criteria for AIDS.
P3: Perinatally exposed children who have seroreverted (no longer have antibody to HIV).

The Pediatric Spectrum of Disease (PSD) Project of the Massachusetts AIDS Surveillance Program tracks disease progression in children diagnosed with AIDS as well as those who have antibodies to HIV but have not been diagnosed as HIV infected. PSD sites track approximately 96% of identified HIV exposed and infected children in Massachusetts.

- Since 1989, 96% of the children reported to the PSD Project were exposed to HIV perinatally. The remaining 4% were exposed to HIV through transfusions or organ transplants, transfusions to treat hemophilia, or through an undetermined source of exposure. All the non-perinatal exposures occurred before 1985, when blood testing for HIV began, but identification occurred more recently (data not shown).

- HIV exposure and disease disproportionately affect black non-Hispanic and Hispanic children. Black children constitute only 6.3% of Massachusetts children under age 18 but account for 38.3% of children reported to the PSD Project. Hispanic children constitute 7.9% but account for 30.7% of children reported to PSD. White non-Hispanic children constitute 82.5% of children under 18 and 27.1% of children reported to PSD. Children of Asian, other and unknown race/ethnicity account for 3.9% of children reported to PSD (data not shown).

- As of January 1, 1994, 42.6% of the children reported to the PSD Project had seroreverted (no longer had antibody to HIV). These children were born to HIV-infected mothers and, because of the presence of maternal HIV antibody in their blood, tested positive for HIV at birth (P0 Indeterminate HIV status). Approximately 20 to 25% of children born to HIV positive mothers go on to be HIV positive themselves.

Number of Child Deaths by Age
Massachusetts: 1980-1991

Age	Number of Deaths and Age-Specific Rates per 1,000 Children by Year							
	1980	1985	1986	1987	1988	1989	1990	1991
0-4 yrs								
Number	875	858	826	704	796	803	742	658
Rate	2.59	2.26	2.13	1.78	1.97	1.94	1.76	1.59
5-9 yrs								
Number	72	49	65	65	79	53	52	66
Rate	0.19	0.13	0.17	0.17	0.21	0.14	0.14	0.18
10-14 yrs								
Number	98	85	59	79	57	70	60	60
Rate	0.21	0.21	0.15	0.21	0.15	0.20	0.17	0.17
15-19 yrs								
Number	377	332	316	260	271	247	263	208
Rate	0.69	0.69	0.67	0.57	0.61	0.58	0.63	0.50
TOTAL	1,422	1,324	1,266	1,108	1,203	1,173	1,117	992
Rate	0.83	0.81	0.78	0.69	0.76	0.74	0.72	0.64

Sources: Registry of Vital Records and Statistics, MDPH, 1980-1991; 1980 Decennial Census, 1990 MARS; 1985 and 1995 Massachusetts Institute for Social and Economic Research (MISER) population projections.

- From 1980 to 1991, deaths to children under age 20 declined 29.5%, from 1,422 to 992 deaths. There was a decline in each age group with the largest decline among 15-19 year olds (44.8%).

- The decline in the absolute number of deaths from 1990-1991, 116, was the second largest absolute decline since 1980; the change from 1986-1987 was the largest annual change, 158 deaths.

- Among 0-4 year olds, approximately 86% of the deaths each year were to children less than one year old (data not shown).

Ten Leading Causes of Mortality for Children Ages 1-4 Massachusetts: 1989-1991

Rank	Underlying Cause of Death	Number	Percent
1	Unintentional Injuries	74	26.4
2	Congenital Anomalies	31	11.1
3	Malignant Neoplasms (Cancers)	30	10.7
4	Diseases of the Nervous System and Sense Organs	26	9.3
5	Diseases of the Respiratory System	22	7.9
6	Ill-Defined Conditions	19	6.8
7	Infectious/Parasitic Diseases (not including AIDS)	15	5.4
8	Diseases of the Circulatory System	11	3.9
9	Endocrine/Nutritional/Metabolic Diseases and Immunity Disorders (not including AIDS)	9	3.2
10	AIDS	8	2.9
10	Diseases of the Digestive System	8	2.9
	All Other Causes	27	9.6
	TOTAL	280	100.0

Source: Registry of Vital Records and Statistics, MDPH, 1989-1991

- From 1989-1991, there were 280 deaths to children between the ages of one and four. Of these, 74 (26.4%) were attributable to unintentional injuries. This was more than twice as many deaths as the next leading cause, congenital anomalies (11.1%).

- The three leading causes of death for children ages one to four (unintentional injuries, congenital anomalies and malignant neoplasms) together accounted for almost half (48.2%) of all deaths in this age group.

- With 8 deaths each, AIDS tied with diseases of the digestive system for the 10th leading cause of death among children aged one to four during the period 1989 through 1991.

NOTE: Underlying Cause of Death is determined from the Death Certificate. Causes of death are classified and grouped according to the codes found in the *International Classification of Diseases 9th Revision* (ICD 9).

Ten Leading Causes of Mortality for Children Ages 5-9 Massachusetts: 1989-1991

Rank	Underlying Cause of Death	Number	Percent
1	Unintentional Injuries	64	37.4
2	Malignant Neoplasms (Cancers)	25	14.6
3	Diseases of the Nervous System	11	6.4
4	Diseases of the Respiratory System	10	5.8
5	Congenital Anomalies	8	4.7
5	Diseases of the Circulatory System	8	4.7
7	Homicide	6	3.5
7	Endocrine/Nutritional/Metabolic Diseases and Immunity Disorders (not including AIDS)	6	3.5
9	Diseases of the Digestive System	5	2.9
9	Infectious/Parasitic Diseases (not including AIDS)	5	2.9
	All Other Causes	23	13.5
	TOTAL	171	100.0

Source: Registry of Vital Records and Statistics, MDPH, 1989-1991

- There were 171 deaths among children ages 5-9 during the period 1989-1991. The most frequently occurring cause of these deaths was unintentional injuries (64, or 37.4%).
- About one death in seven (14.6%) among children in this age group was caused by malignant neoplasms, the second leading cause of death.
- With 6 deaths each, homicide was tied with endocrine/nutrition/metabolic disorders for the 7th leading cause of death among 5-9 year olds.
- The three leading causes of death in this age group (unintentional injuries, malignant neoplasms and diseases related to the nervous system) accounted for 58.4% of all deaths.

NOTE: Underlying Cause of Death is determined from the Death Certificate. Causes of death are classified and grouped according to the codes found in the *International Classification of Diseases 9th Revision* (ICD 9).

Ten Leading Causes of Mortality for Children Ages 10-14 Massachusetts: 1989-1991

Rank	Underlying Cause of Death	Number	Percent
1	Unintentional Injuries	62	32.6
2	Malignant Neoplasms (Cancers)	34	17.9
3	Homicide	16	8.4
4	Diseases of the Nervous System	13	6.8
5	Congenital Anomalies	12	6.3
6	Suicide	9	4.7
6	Diseases of the Circulatory System	9	4.7
8	Diseases of the Respiratory System	8	4.2
9	Ill-Defined Conditions	6	3.2
10	Endocrine/Nutritional/Metabolic Diseases and Immunity Disorders (not including AIDS)	5	2.6
	All Other Causes	16	8.4
	TOTAL	190	100.0

Source: Registry of Vital Records and Statistics, MDPH, 1989-1991

- There were 190 deaths among children aged 10-14 during the period 1989-1991. Almost one third of these deaths (62, or 32.6%) were due to unintentional injuries.
- 34 deaths (17.9%) were caused by malignant neoplasms, the second leading cause of death in this age group.
- With 16 deaths, homicide has become the third leading cause of death in this age group.
- The three leading causes of death in this age group accounted for nearly 60% of all deaths.

NOTE: Underlying Cause of Death is determined from the Death Certificate. Causes of death are classified and grouped according to the codes found in the *International Classification of Diseases 9th Revision* (ICD 9).

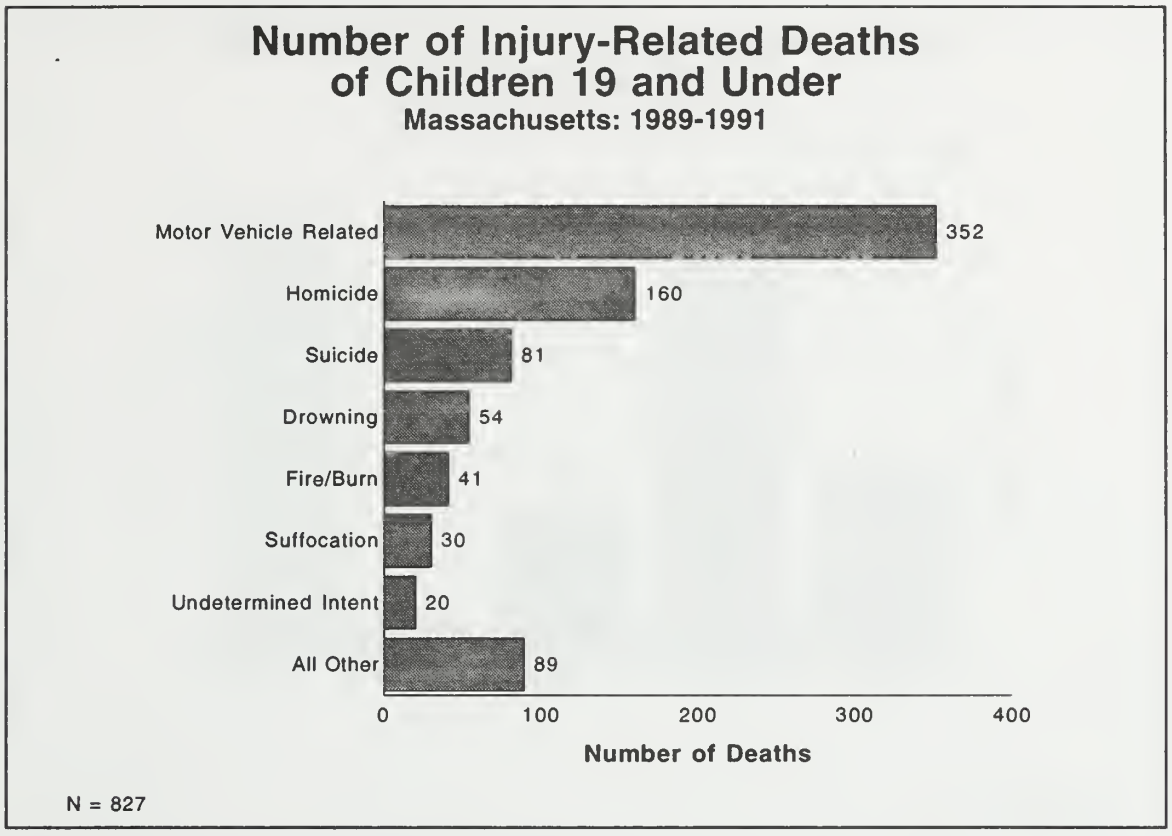
Ten Leading Causes of Mortality for Children Ages 15-19 Massachusetts: 1989-1991

Rank	Underlying Cause of Death	Number	Percent
1	Unintentional Injuries	336	46.8
2	Homicide	125	17.4
3	Suicide	72	10.0
4	Malignant Neoplasms (Cancers)	43	6.0
5	Diseases of the Circulatory System	31	4.3
6	Diseases of the Nervous System	18	2.5
7	Injury of Undetermined Intent	14	1.9
7	III-Defined Conditions	14	1.9
9	Congenital Anomalies	12	1.7
10	Infectious/Parasitic Diseases (not including AIDS)	11	1.5
	All Other Causes	42	5.8
	TOTAL	718	100.0

Source: Registry of Vital Records and Statistics, MDPH, 1989-1991

- There were 718 deaths among children 15-19 years old during the period 1989-1991. Almost half of these deaths (336, or 46.8%) were due to unintentional injuries.
- Homicide was the second leading cause of death, accounting for 125 deaths (17.4% of all deaths) in this age group.
- Suicide was the third leading cause of death among 15-19 year olds, accounting for 72, or roughly 10% of all deaths in this age group.
- The three leading causes of death in this age group accounted for 74.2%, or nearly three quarters of all deaths. Homicide and suicide accounted for over one quarter of all deaths among 15-19 year olds.
- The three leading causes of death among adolescents are related to injuries or violence.

NOTE: Underlying Cause of Death is determined from the Death Certificate. Causes of death are classified and grouped according to the codes found in the *International Classification of Diseases 9th Revision* (ICD 9).



Source: Registry of Vital Records and Statistics, MDPH, 1989-1991

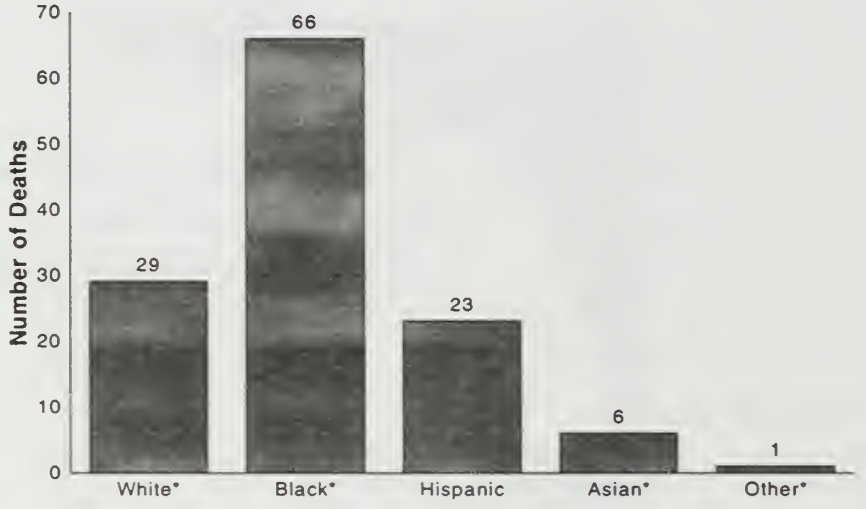
- Injuries are the leading cause of death to children 1-19 years old. In the three-year period from 1989-1991, there were 827 injury-related deaths to children through the age of 19.

- Motor vehicle-related deaths accounted for 352 or 42.6% of all child deaths. Of these, 246 were to motor vehicle occupants, 54 were to pedestrians, and 52 were other motor-vehicle-related (data not shown).

- The second leading cause of injury-related death among children was homicide, accounting for nearly one in five (19.3%) of all injury-related child deaths; the third leading cause was suicide, accounting for 81 deaths, or nearly 10% of all injury-related child deaths.

- From 1989-1991, of the 160 homicide and 81 suicide deaths among children 0-19 years old, 44 (18.3%) were among children 0-14 years old (data not shown).

Homicide Deaths of 15 - 19 Year Olds by Race/Ethnicity
Massachusetts: 1989-1991



* non-Hispanic
N = 125

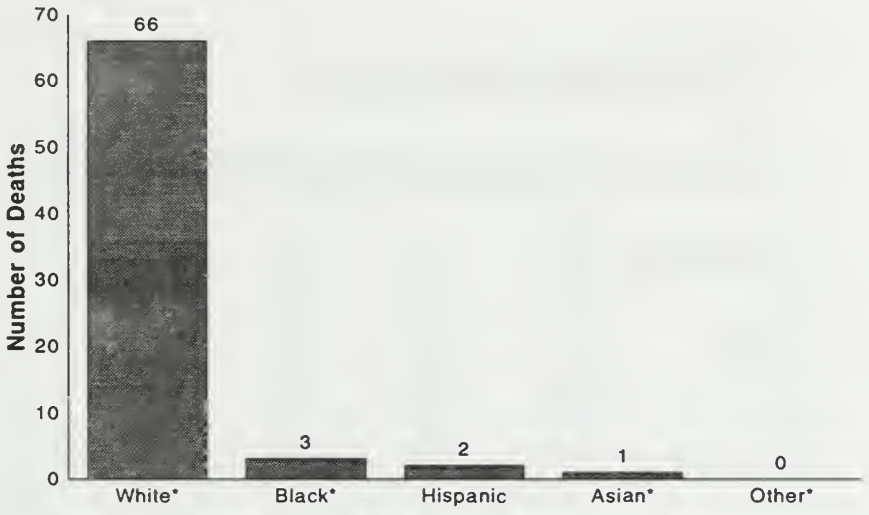
Source: Registry of Vital Records and Statistics, MDPH, 1989-1991.

- From 1989-1991, 125 teenagers age 15-19 years were killed. Sixty-six of these homicide deaths were of black non-Hispanics; white non-Hispanics, Hispanics and Asians had 29, 23 and 6 homicide deaths respectively.

- Over half (52.8%) of all homicide deaths of 15-19 year olds in Massachusetts occurred to black non-Hispanics.

Suicide Deaths of 15 - 19 Year Olds by Race/Ethnicity

Massachusetts: 1989-1991



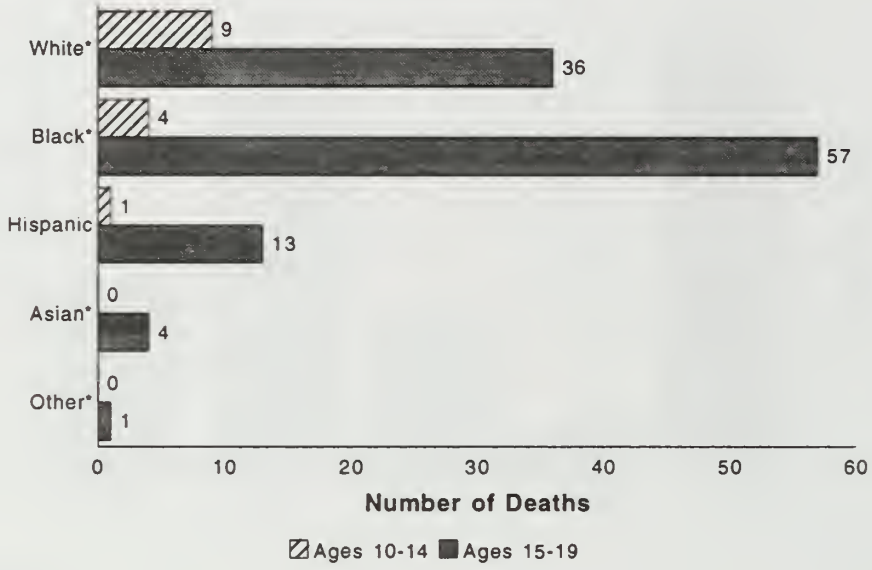
* non-Hispanic
N = 72

Source: Registry of Vital Records and Statistics, MDPH, 1989-1991.

- From 1989-1991, there were 72 suicides among 15-19 year olds. Sixty-six of these deaths were white non-Hispanics; black non-Hispanics, Hispanics and Asians had 3, 2, and 1 suicide deaths respectively.

- More than 9 in 10 (91.7%) suicide deaths among 15-19 year olds in Massachusetts were among white non-Hispanics.

Number of Firearm Deaths of Children by Age and Race/Ethnicity
Massachusetts: 1989-1991



N = 125
* non-Hispanic

Source: Registry of Vital Records and Statistics, MDPH, 1989-1991.

- Of the 14 firearm deaths of children 10-14 years old during the period 1989-1991, nine (64.3%) were among white non-Hispanics and four (28.6%) were among black non-Hispanics.

- Of the 111 firearm deaths of 15-19 year olds, 51.4% (57) were among black non-Hispanics, 32.4% (36) were among white non-Hispanics and 11.7% (13) were among Hispanic youth.

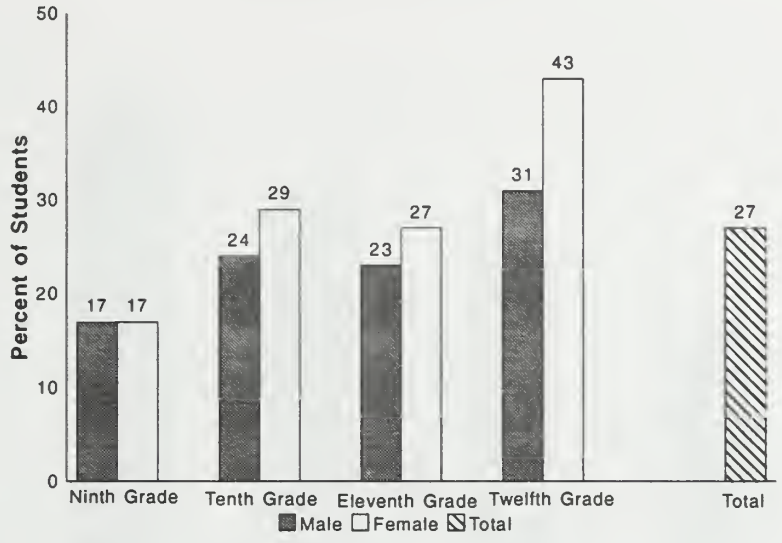
- Firearm deaths accounted for only 5.8% of all deaths of white non-Hispanic children aged 0-14 years and 7.1% of deaths of Hispanic children aged 0-14 years. Nearly one in four (23.5%) deaths of black non-Hispanic children in this age group was caused by firearms (data not shown).

- Over half (54.3%) of deaths of black non-Hispanic 15-19 year olds were caused by firearms. The percentage of all deaths of 15-19 year old white non-Hispanic, Hispanic, Asian, and adolescents of other race/ethnicity caused by firearms, was 6.6%, 25.5%, 18.6%, and 50.0% respectively (data not shown).

NOTE: Firearm deaths may be homicides, suicides, undetermined intent, and unintentional injury deaths.

Percent of High School Students Who Ever Smoked Regularly* by Grade and Sex

Massachusetts: 1992



*Regularly = at least once a day for 30 days.

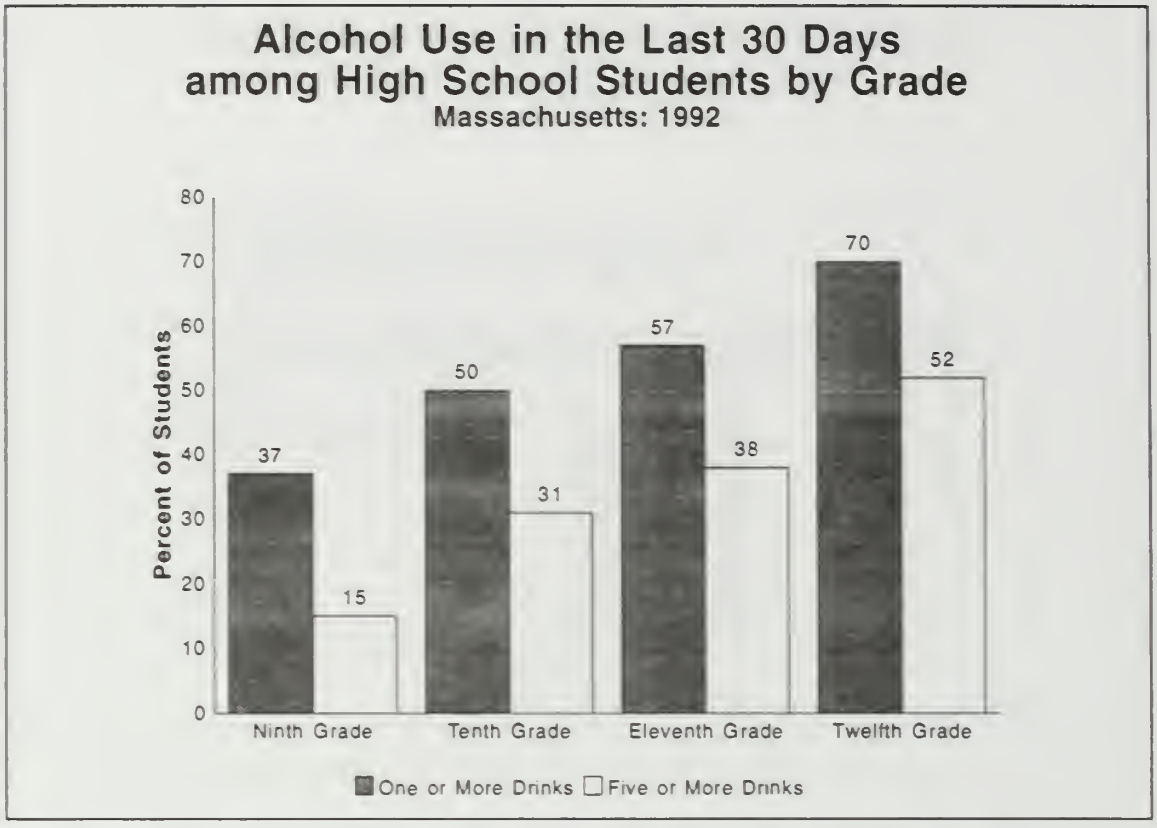
Source: *Massachusetts 1992 Youth Risk Behavior Survey Results*, Massachusetts Department of Education, 1993

The Youth Risk Behavior Survey (YRBS) is conducted periodically by the Massachusetts Department of Education as part of a nation-wide effort to monitor the prevalence of youth behaviors that most influence health. The 1992 survey, completed by 1,960 students, was conducted in 39 randomly selected public high schools across the state. The sample includes schools from four of the nine largest cities in Massachusetts but does not include data from Boston or Worcester. The sample, therefore, reflects medium and smaller-sized urban areas, suburban areas, and rural communities across the state. The survey was self-administered and consisted of multiple choice questions.

- In 1992, over one quarter (27%) of all surveyed students reported that they smoked cigarettes regularly (at least one cigarette a day for 30 days) at some point in their lives.

- The percentage of students who have ever smoked regularly increased with grade level and increased more rapidly among young women than among young men. Smoking increased for both males and females from 9th to 10th grades and again from 11th to 12th grades, with very little change from 10th to 11th grade.

- Of students who admitted smoking within the last month, nearly three quarters smoked more than two cigarettes per day each day they smoked, and almost a quarter (23%) smoked more than 10 cigarettes each day they smoked (data not shown).



Source: *Massachusetts 1992 Youth Risk Behavior Survey Results*, Massachusetts Department of Education, 1993

- Of the students completing the YRBS survey in 1992, more than eight in 10 (82%) reported using alcohol for other than religious purposes on at least one occasion in their lives (data not shown).

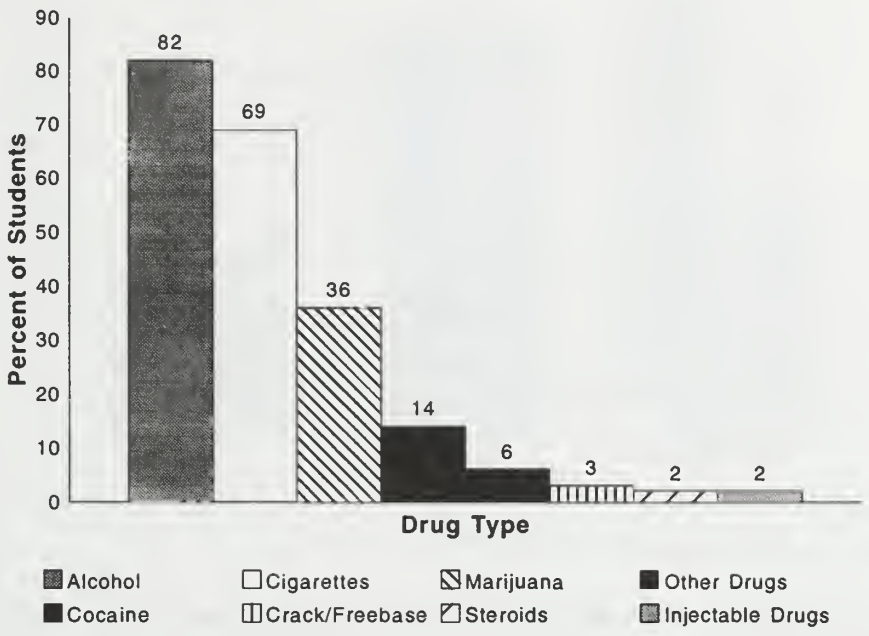
- More than one quarter of all students surveyed (28%) reported having their first alcoholic drink before the age of 13 (data not shown).

- Nearly four in 10 ninth grade students surveyed reported having one or more alcoholic drinks in the past 30 days. By twelfth grade, 70% of students reported having one or more drinks in the prior month.

- Fifteen percent of ninth grade students reported having five or more drinks in the past month and over half of twelfth grade students (52%) reported this amount of drinking.

High School Students Who Reported at Least Once in Lifetime Drug Use by Type of Drug

Massachusetts: 1992



Source: *Massachusetts 1992 Youth Risk Behavior Survey Results*, Massachusetts Department of Education, 1993

- The most commonly used substances by far among high school students surveyed in the 1992 YRBS were alcohol and tobacco. Over 80% reported using alcohol at some time in their lives, and almost 70% reported smoking tobacco. In addition, 36% reported ever using marijuana, 6% reported cocaine use, and 14% reported use of other drugs such as LSD, PCP, ecstasy, mushrooms, speed, ice and heroin.

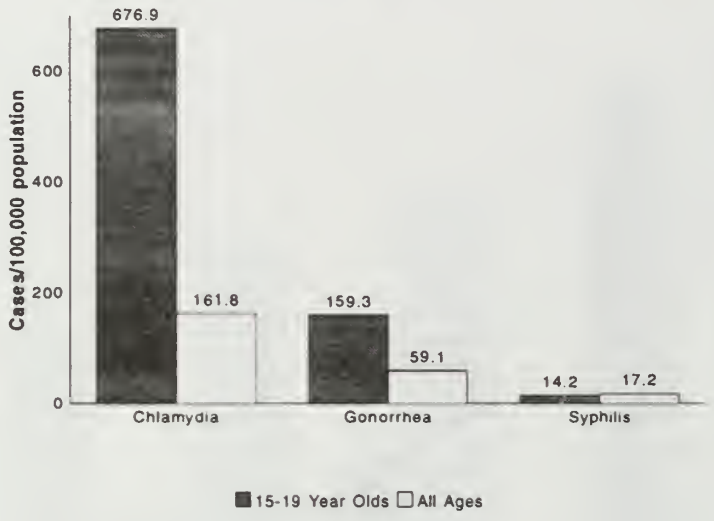
- Two percent of students reported using steroids and 2% reported using other injectable drugs.

- Drug use prior to age 13 was reported among a small percentage of respondents. Only 7% of survey respondents reported having tried marijuana and only 1% reported cocaine use before age 13 (data not shown).

- Drug use among the Massachusetts students surveyed was similar to reporting noted in a national survey except for marijuana usage which appeared to be higher than the national average (Source: Centers for Disease Control. *Tobacco, Alcohol, and Other Drug Use Among High School Students - United States, 1991*. MMWR 41:698-703, 1992).

Sexually Transmitted Disease Rates among 15-19 Year Olds and among All Ages

Massachusetts: 1992



Source: Division of Sexually Transmitted Disease Control, MDPH

- In 1992, 2,808 cases of chlamydia, 661 cases of gonorrhea, and 59 cases of syphilis were reported among adolescents ages 15-19 in Massachusetts.

- The rate of chlamydia infection among 15-19 year olds was more than four times higher than the rate for people of all ages. Teenagers had almost three times the rate of infection from gonorrhea compared to people of all ages. The rate of infection from syphilis among teenagers was comparable to the rate among people of all ages.

- Over 80% of the cases of these three STDs among 15-19 year olds were among females (2,978 of 3,528 cases).

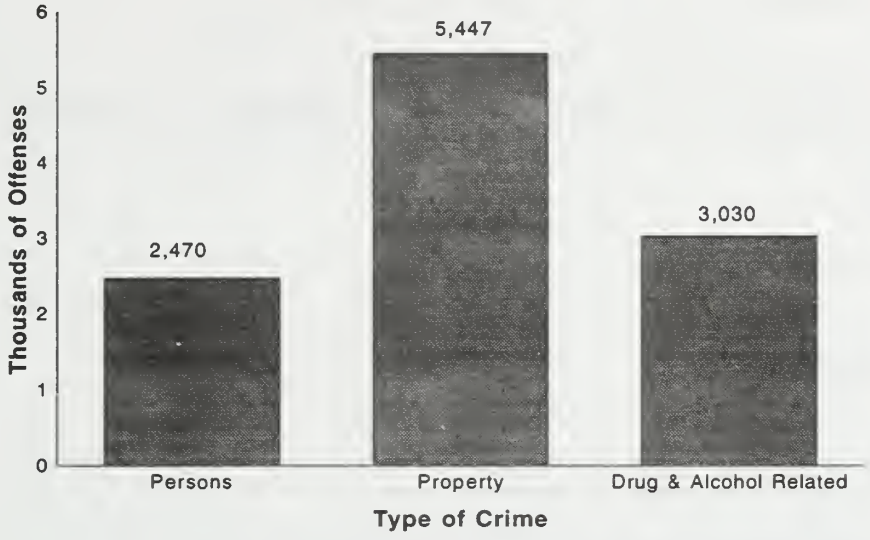
- The combined rate of these three STDs among 15-19 year olds was 850.5 cases per 100,000 adolescents in that age range, a decline of 21.5% from 1991. The rate of chlamydia infection declined from 753.9 per 100,000 in 1991; the rate of gonorrhea infection declined from 309.1; and the rate of syphilis infection declined from 20.5 in 1991 (data not shown).

- There were 209 cases of chlamydia, 65 cases of gonorrhea, and 5 cases of syphilis among children less than 15 years old in 1992 (data not shown).

Note: Rates were calculated using population denominators interpolated from the 1995 Massachusetts Institute for Social and Economic Research population count projections and adjusted according to the U.S. Bureau of the Census MARS file modifications. See Technical Notes for further discussion of population counts.

Number of Juvenile Offenses by Classification of Crime

Massachusetts: 1991



N = 10,947

Source: Crime Reporting Unit, Criminal Information Section, Massachusetts State Police

Federal Bureau of Investigation's Uniform Crime Reporting System classifications:
Crimes against Persons: include criminal homicide, forcible rape, and aggravated and other assaults.
Crimes against Property: include robbery, burglary, larceny/theft, motor vehicle theft, and arson.
Drug and Alcohol Related Crimes: include drug abuse violations, driving under the influence, liquor law violations, and drunkenness.

- Crimes against property was the most common category of crime among juveniles, with almost twice as many offenses as the next leading category, drug- and alcohol-related violations.

- Among all juvenile offenses in 1991 (17,966), nearly one in three was for a crime against property; 16.9% were for drug- and alcohol-related crimes, and 13.7% were for crimes against a person. The majority (54.5%) of crimes against persons were aggravated assaults (data not shown).

- A majority (71.8%) of the juvenile offenses recorded were committed by white children; 27.1%. of the offenses were committed by black children and 1.1% by Asian and American Indian children. (Hispanic persons may be of any race).

Note: The Massachusetts State Police compile statistics from reports by local police departments and agencies throughout the state. The counts listed for each category include offenses which did not result in formal charges, and reflect a complaint against a single individual. Although an individual may be charged with more than one offense, only one offense is counted here per individual.

Juvenile Court Cases Initiated by Jurisdiction and Case Type Massachusetts: FY 1992

	Division*				
Juvenile Case Type	Boston	Bristol County	Springfield	Worcester	TOTAL
Delinquency	862	4,331	2,451	1,708	9,452
Children in Need of Services (CHINS)	917	472	338	411	2,138
Care and Protection					
Petitions	498	226	141	144	1,009
Children Represented	1,003	400	240	398	2,041

* The four Massachusetts Juvenile Court divisions are located in the cities of Boston, Springfield, and Worcester and in Bristol County. In other areas of the Commonwealth, juvenile cases are managed in the district courts.

Source: *Massachusetts Trial Court Interim Annual Report, 1992*, Administrative Office of the Trial Court, Commonwealth of Massachusetts, 1993

Delinquency cases: involve children between the ages of seven and seventeen who are accused of committing crimes. Children under the age of seven cannot be formally charged with a crime. Children who have reached their seventeenth birthday are charged in the adult court system. Some younger children accused of particularly serious crimes may be transferred to the adult court system following a juvenile court hearing. When charges against a child are found to be true, he or she may receive probation or may be committed to the custody of the Department of Youth Services.

CHINS cases: involve children who present specific behavioral problems; included are runaways, stubborn children, truants, and chronic school offenders. The court fosters better relationships between children and their families, schools and communities by ordering services such as informal guidance, family intervention, therapy, or probation.

Care and Protection cases: involve children who are at risk for physical and/or emotional abuse and/or neglect. The court's jurisdiction includes children from birth to age 18. Care and Protection cases focus on providing services to change family behavior that harms or threatens to harm the child. Children involved in Care and Protection may remain with their family with support services, or they may be placed in the temporary custody of the Department of Social Services.

- The number of delinquency, CHINS, and Care and Protection cases has increased from FY 1988 to FY 1991. In FY 1988, 8,071 delinquency cases were initiated, 2,035 CHINS cases, and 600 Care and Protection petitions. However, the number of cases and petitions declined from FY 1991 to FY 1992 (data not shown).

District Court Juvenile Filings
Massachusetts, 1992

Type of Filing	Number
Delinquency	
TOTAL Complaints Entered	15,928
Juvenile Charges Entered	
Motor Vehicle	4,617
Breaking & Entering	3,727
Larceny & Fraud	6,547
Disturbing the Peace & Disorderly Conduct	1,676
Assault	5,986
Narcotics	1,410
All Other Charges	6,864
TOTAL Juvenile Charges	30,827
Children in Need of Services (CHINS)	
Applications Received	3,320
Petitions Issued	1,871
Care and Protection	
Cases Received	1,404

Source: *Massachusetts Trial Court Interim Annual Report, 1992*, Administrative Office of the Trial Court, Commonwealth of Massachusetts, 1993

Complaint refers to the official charging document on which one or more juvenile charges is alleged against a single juvenile. ***Charge*** refers to a single count alleged in a complaint. Each charge is for a separate and distinct offense.

- Property crimes (Breaking & Entering and Larceny & Fraud) accounted for over 30% of juvenile charges. Assaults accounted for nearly a fifth (19.4%) of charges of brought against juveniles.

- Total juvenile delinquency charges increased between 1989 and 1992. In 1989, there were 28,886 charges brought against juveniles compared to 31,006 in 1992 (data not shown).

Juvenile Probation Supervision Caseload
Massachusetts, 1992

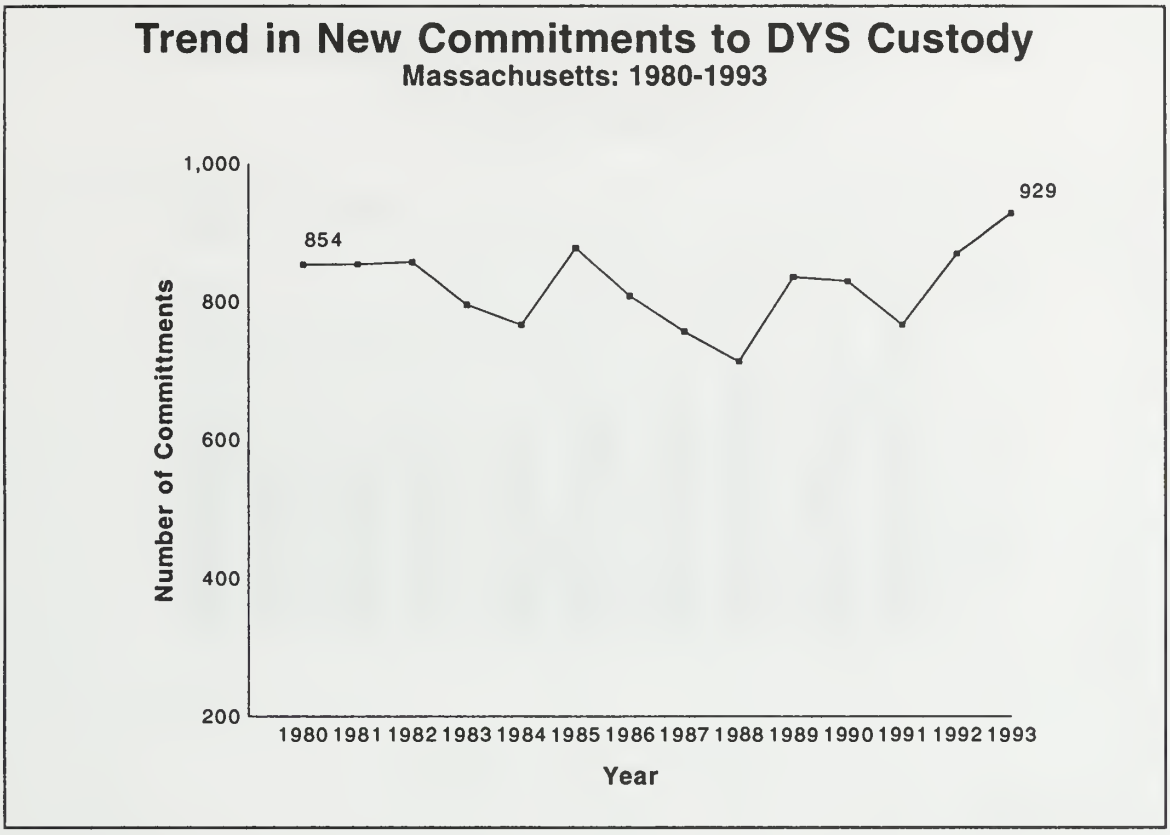
Type of Case	Number of Juveniles Supervised
Risk/Need	3,275
CHINS	5,918
Care and Protection	2,325
TOTAL	11,518

Source: *Massachusetts Trial Court Interim Annual Report, 1992*, Administrative Office of the Trial Court, Commonwealth of Massachusetts, 1993

Risk/Need cases involve juveniles who have been found delinquent. The juvenile's "risk" to the community is assessed along with the juvenile's "need" for supervision in order to determine the level of supervision during probation.
CHINS cases involve juveniles who have committed status offenses or truancy. The level of supervision depends on which agencies are involved, e.g. Probation, Department of Social Services, etc.
Care and Protection cases involve children who are risk for physical and/or emotional abuse and/or neglect. Supervision involves case management.

- In 1992, supervision of juveniles found to be delinquent constituted 28.4% of the juvenile probation caseload. CHINS and Care & Protection cases constituted 71.6% of all juvenile supervision cases.

- In 1992, juvenile probation cases constituted 16.7% of the Massachusetts Probation Service's supervision caseload (data not shown).



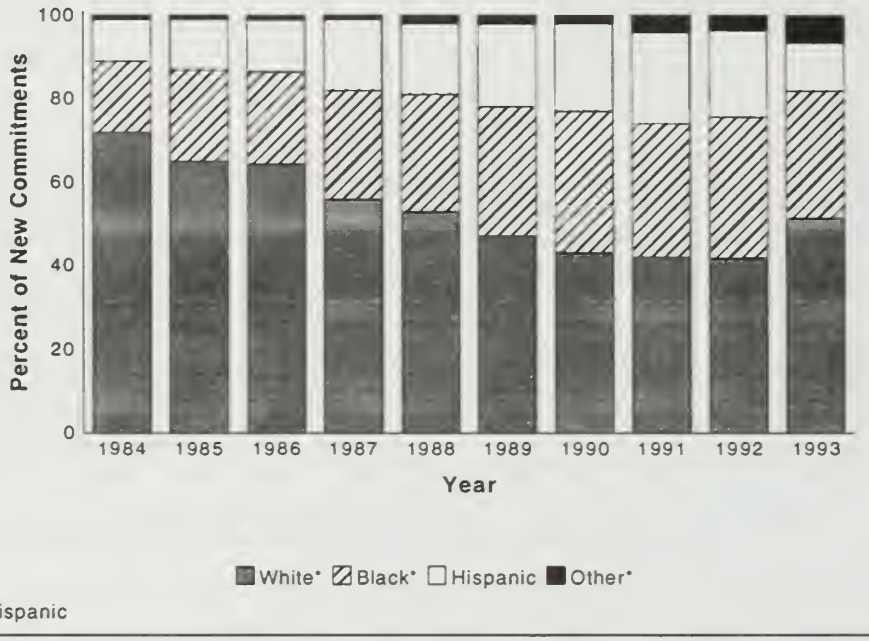
Sources: *Analysis of Commitments, 1992*. Massachusetts Department of Youth Services, 1993 and Bureau of Planning, Research and Systems, MDYS, 1994.

Youths who have been convicted of crimes may be committed to DYS custody until they turn 18, or until they are 21 for serious offenses. Youths under age 17 who are awaiting trial may be held in detention by DYS if they have not been released to their families or cannot post bail.

- In 1993, 929 youths were newly committed to the custody of the Department of Youth Services. This was the highest number of commitments in the past decade and nearly a 7% increase from 1992.

- In 1993, there were 3,446 bail admissions to the DYS Detention System. This was the highest number of youth ever admitted to the system and represented an increase in admissions of over 19% since 1992 and a 48% increase since 1985 (data not shown).

Trend in Percent of New DYS Commitments by Race/Ethnicity
Massachusetts: 1984 - 1993



Sources: *Analysis of Commitments, 1992*. Massachusetts Department of Youth Services, 1993 and Bureau of Planning, Research and Systems, MDYS, 1994.

- Since 1984 there has been a decline in both the number of white non-Hispanic children newly committed to the Department of Youth Services and in the percentage of new commitments among white non-Hispanic children. In 1984, 71.7% (550) of the 767 children newly committed were white non-Hispanic; in 1993, 51.3% (477) of the 929 children newly committed were white non-Hispanic.

- In 1984, 17.2% (132) of children newly committed were black non-Hispanic and 9.6% (74) were Hispanic. By 1993, 30.5% (283) of children newly committed were black non-Hispanic and 11.7% (109) were Hispanic. The percentage and number of children of other races also increased from 1.4% (11) in 1984 to 6.5% (60) in 1993.

Number of Youths Newly Committed to the Custody of the Department of Youth Services by Sex, Age, and Race/Ethnicity

Massachusetts: 1993

	MALES		FEMALES		TOTAL	
	N	%	N	%	N	%
AGE IN YEARS						
9.0 - 12.5	7	0.8	0	0.0	7	0.8
12.6 - 13.5	32	3.7	1	1.7	33	3.6
13.6 - 14.5	108	12.4	13	22.4	121	13.0
14.6 - 15.5	225	25.8	16	27.6	241	25.9
15.6 - 16.5	267	30.7	19	32.8	286	30.8
16.6 +	232	26.6	9	15.5	241	25.9
RACE/ETHNICITY						
White*	449	51.5	28	48.3	477	51.3
Black*	261	30.0	22	37.9	283	30.5
Hispanic	102	11.7	7	12.1	109	11.7
Other*	59	6.8	1	1.7	60	6.5
TOTAL	871	100.0	58	100.0	929	100.0

*non-Hispanic

Source: Bureau of Planning, Research and Systems, Massachusetts Department of Youth Services, 1994

- The majority of the youths newly committed to Department of Youth Services custody in 1993 were male (93.8%).
- Most (82.7%) of the youths were over 14.6 years old, 161 were fourteen and a half or younger.
- As of November 1993, the total DYS committed caseload was 1,764 youth, a 12% increase since November, 1988 (Source: *Monthly Report: October 1993*, Massachusetts DYS).
- Approximately half (51.3%) of the youths were white, 30.5% were black, 11.7% were Hispanic and 6.5% were of other race/ethnicities.

Number of Youths Newly Committed to the Department of Youth Services by Race/Ethnicity and Type of Offense Massachusetts: 1993

Offense Type	White*		Black*		Hispanic		Other*		TOTAL	
	N	Row %	N	Row %	N	Row %	N	Row %	N	Row %
Person	201	51.7	122	31.4	44	11.3	22	5.7	389	100
Property	231	62.6	81	22.0	41	11.1	16	4.3	369	100
Distribute Drugs	6	8.8	39	57.4	15	22.1	8	11.3	68	100
Possess Drugs	2	16.7	4	33.3	2	16.7	4	33.3	12	100
Motor Vehicle	15	57.7	7	26.9	1	3.8	3	11.5	26	100
Weapons Offense	6	27.3	11	50.0	3	13.6	2	9.1	22	100
Public Order	16	37.2	19	44.2	3	7.0	5	11.6	43	100
TOTAL	477	51.3	283	30.5	109	11.7	60	6.6	929	100

*non-Hispanic
Source: Bureau of Planning, Research and Systems, Massachusetts Department of Youth Services, 1994.

- In 1993, commitments for offenses against persons (including manslaughter, armed and unarmed assault, armed and unarmed robbery) accounted for 41.9% of new commitments to DYS custody. Approximately half (51.7%) of these commitments involved white youths. Commitments for offenses against persons accounted for 42.1% of white, 43.1% of black and 40.3% of commitments of Hispanic youths.

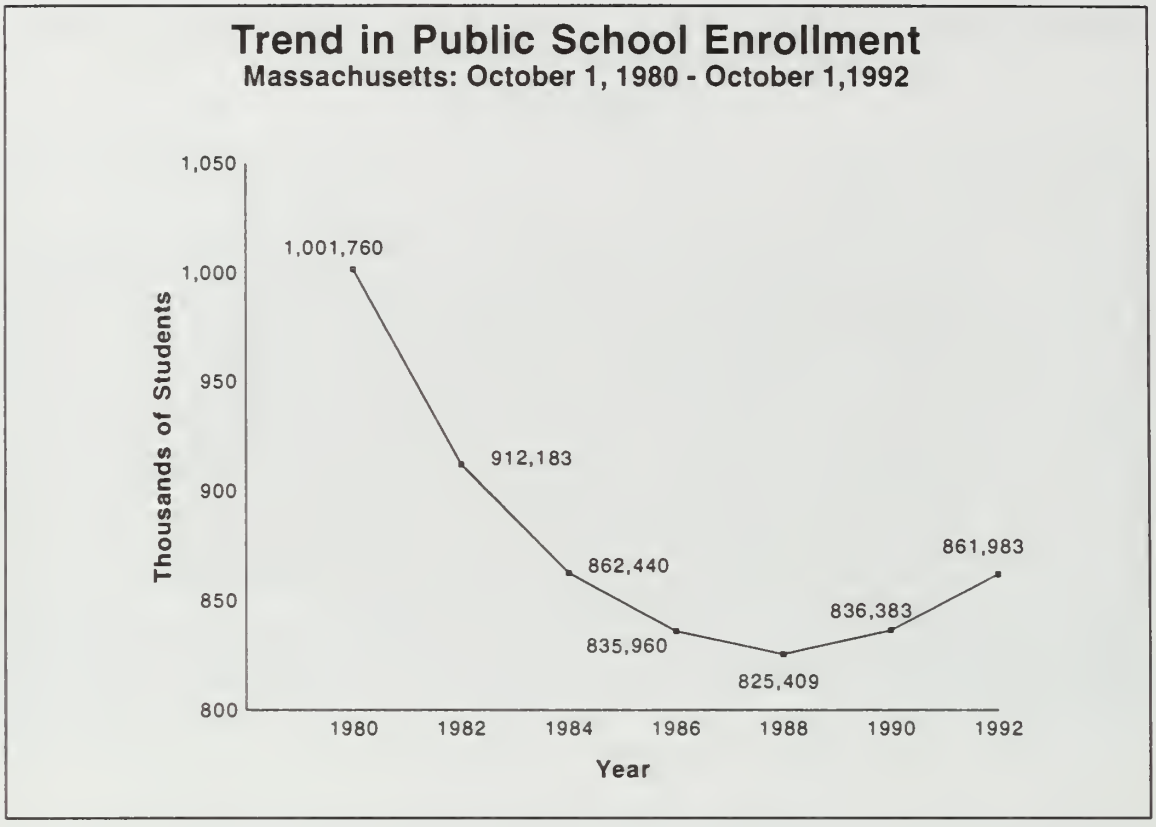
- Commitments for offenses against property (including burglary, larceny, receiving stolen property) accounted for 39.7% of new commitments. Over 60% of these commitments were of white youths.

- Of the 68 commitments for drug distribution, 39 (57.4%) were of black youths.

Part Five

Education

Part Five is entirely devoted to the education process and all data were provided by the Massachusetts Department of Education. This section includes data on trends in public and private/parochial school enrollment over time, special education enrollment by program prototype, and the per pupil costs of various education programs. Information on the number of children whose first language is not English and the number who cannot perform classwork in English reflect the increasing diversity among Massachusetts children. Data are also presented on grade retention, suspensions, and dropout rates.



Source: Evaluation, Planning, and Research Group, Massachusetts Department of Education.

- In October of 1992, a total of 985,288 students were enrolled in public and private schools in Massachusetts. Of this number, 861,983 (87.5%) students were enrolled in public schools and 123,305 (12.5%) students were enrolled in private or parochial schools.

- Although the number of children enrolled in Massachusetts public schools declined 14.0% from 1980 to 1992, the percentage of children enrolled in public schools remained stable. In 1992, 87.5% of the students were enrolled in public schools compared to 87.8% of students in 1980.

- Among public school students enrolled in October, 1992, 434,072 (50.4%) were in pre-kindergarten through fifth grade, 187,838 (21.8%) were in grades six, seven and eight, and 230,299 (26.7%) were in grades nine through twelve. In addition, 7,739 public school students were enrolled in ungraded programs and 2,035 were enrolled in post-graduate educational and vocational programs (grades 13 and 14). See Appendix D for table of enrollment numbers by grade.

Trend in Private and Parochial School Enrollment

Massachusetts: October 1, 1980 - October 1,1992

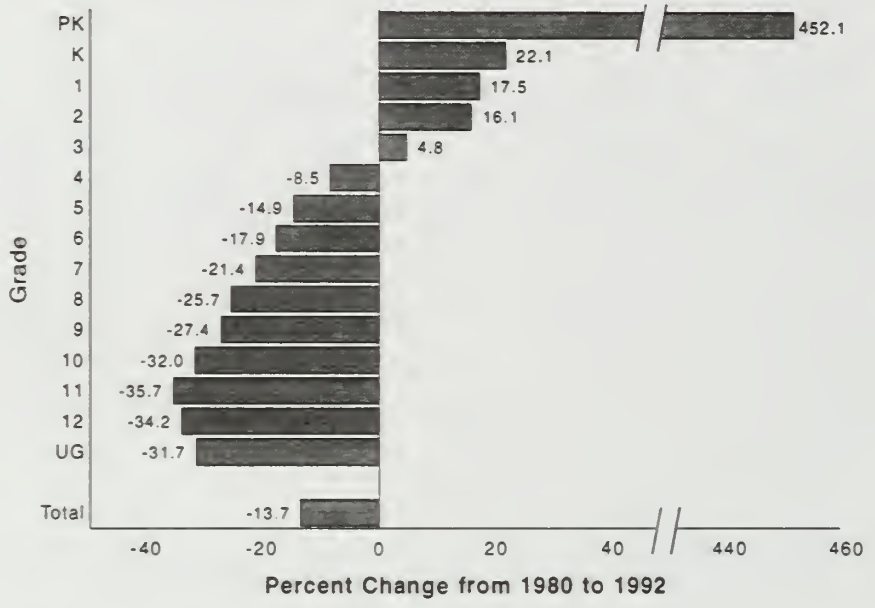
Source: Evaluation, Planning, and Research Group, Massachusetts Department of Education.

- In October of 1992, 123,305 students were enrolled in Massachusetts private and parochial schools, a decline of 11.4% (15,820 students) since 1980.

- From 1980 to 1984 there was a decline in the school-age population. From 1984-1989, both public and private school enrollment declined, as did the school-age population. Since 1990, the percent of students attending private and parochial schools has slightly decreased from 12.7% to 12.5% in 1992, although enrollments increased in numbers.

Percent Change in Public School Enrollment by Grade

Massachusetts: October 1,1980 to October 1, 1992



PK = Pre Kindergarten, UG = Ungraded
Source: Evaluation, Planning, and Research Group, Massachusetts Department of Education.

- There was a 13.7% decline in public school enrollment in pre-kindergarten through twelfth grade between 1980 and 1992, a loss of 136,607 students. However, the decline in public school enrollment during this twelve year period was not even among grade levels. While the number of students in grades 4 through 12 decreased, enrollment in pre-kindergarten through third grade increased in each grade.

- The greatest proportional increase in public school enrollment occurred among children in pre-kindergarten (452.1%). The increase occurred, in part, because more parents now send their children to preschool. The number of children enrolled in pre-kindergarten grew from 1,942 in 1980, to 10,722 in 1992 (data not shown).

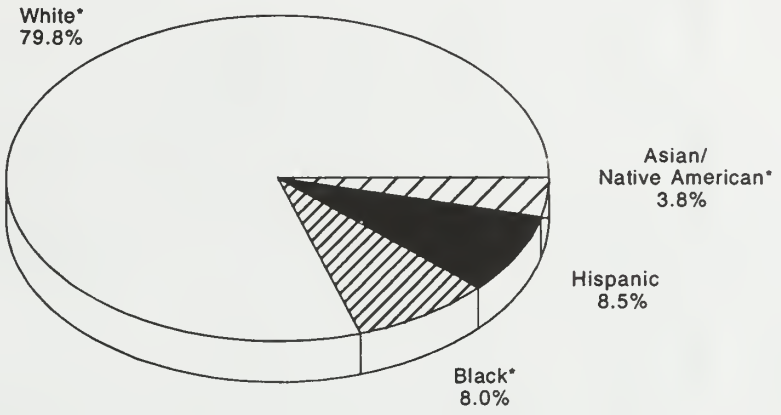
- Kindergarten enrollment increased 22.1% from 1980 to 1992.

- The greatest decline in enrollment between 1980 and 1992 occurred in the 11th and 12th grades (35.7% and 34.2% respectively), for a net decrease of 57,804 students.

NOTE: See Appendix D for a table of the numbers of students enrolled in each grade between 1980 and 1992.

Students Enrolled in Public School by Race/Ethnicity

Massachusetts: 1992-1993 School Year



N = 861,983
* non Hispanic

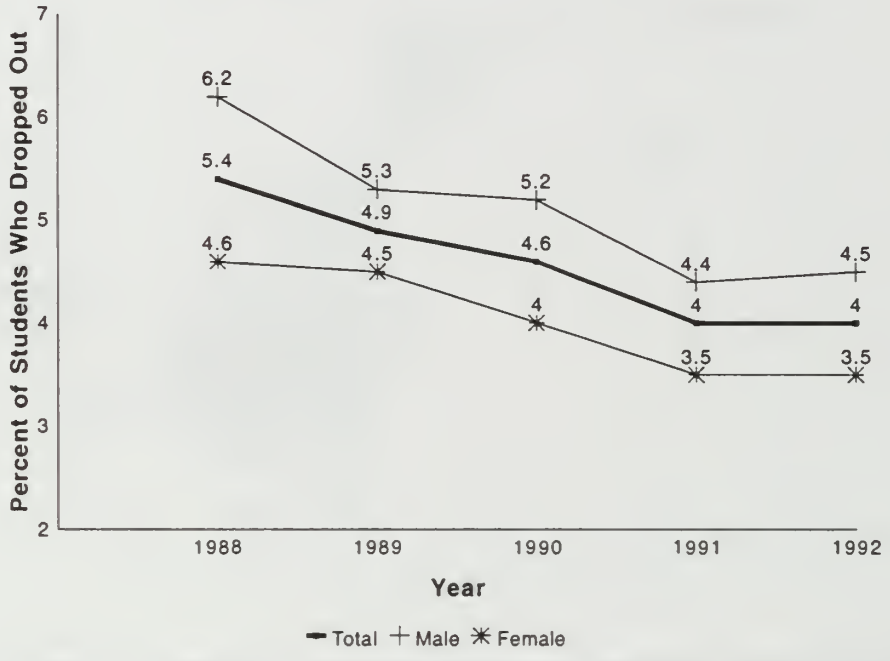
Source: Evaluation, Planning, and Research Group, Massachusetts Department of Education.

- The race/ethnicity composition of Massachusetts public schools reflects the race/ethnicity composition of the Commonwealth's population of children.

- Of the 861,983 children enrolled in public schools in 1992, 688,252 (79.8%) students were white non-Hispanic, 72,889 (8.5%) were Hispanic, 68,775 (8.0%) were black non-Hispanic, 30,692 (3.6%) were Asian, and 1,375 (0.2%) were Native American.

Public School Dropout Rates Grades 9-12 by Sex

Massachusetts: 1988 - 1992



Source: *Dropout Rates in Massachusetts Public Schools: 1992*. Evaluation, Planning, and Research Group, Massachusetts Department of Education.

- The public school dropout rate in the period 1988-1992 showed a gradual decline from 5.4% in 1988 to 4% in 1992.
- The portion of males who dropped out was greater than the portion of females who dropped out.
- Between 1988 and 1992, the dropout rate declined more rapidly among males (27.4%) than females (23.9%), with a total decrease in the overall dropout rate of 25.9%.

Public School Dropout Rates by Grade, Sex and Race/Ethnicity Massachusetts: 1991-1992 School Year

	Number Enrolled	Number of Dropouts	Annual Rate	Estimated 4-Year Rate
Grade				
Grade 9	62,685	2,348	3.7%	15%
Grade 10	58,425	2,723	4.7%	--
Grade 11	55,555	2,559	4.6%	--
Grade 12	53,505	1,652	3.1%	--
Sex				
Male	117,368	5,333	4.5%	17%
Female	112,802	3,949	3.5%	13%
Race/Ethnic Group				
White*	186,880	5,711	3.1%	12%
Black*	18,156	1,352	7.4%	26%
Hispanic	16,681	1,858	11.1%	36%
Asian*	7,914	335	4.2%	16%
Native American*	539	26	4.8%	18%
TOTAL Grades 9-12	230,170	9,282	4.0%	—

* non-Hispanic.

Sources: *Dropout Rates in Massachusetts Public Schools: 1992*. Evaluation, Planning, and Research Group, Massachusetts Department of Education.

- During the 1991-1992 school year, a total of 9,282 students in grades 9-12 dropped out of public schools in Massachusetts.

- The estimated four-year dropout rates varied by race/ethnicity groups: 36% of Hispanic students, 26% of black students, 18% of Native American students, 16% of Asian students, and 12% of white non-Hispanic students are estimated to drop out. This means that more than a third of Hispanic ninth grade public school students enrolled in the 1991-1992 school year are estimated to drop out before the end of the 1995-1996 school year.

- Seventeen schools, 15 of which were urban, accounted for 27.1% of dropouts, while comprising only 7.5% of the grade 9-12 enrollment (data not shown).

NOTE: The projected four-year drop-out rate is the cumulative percent of ninth graders (class of 1995) projected to drop out over the four year period.

Public School Students Retained in Grade by Grade, Race/Ethnicity and Sex Massachusetts: 1991-1992 School Year

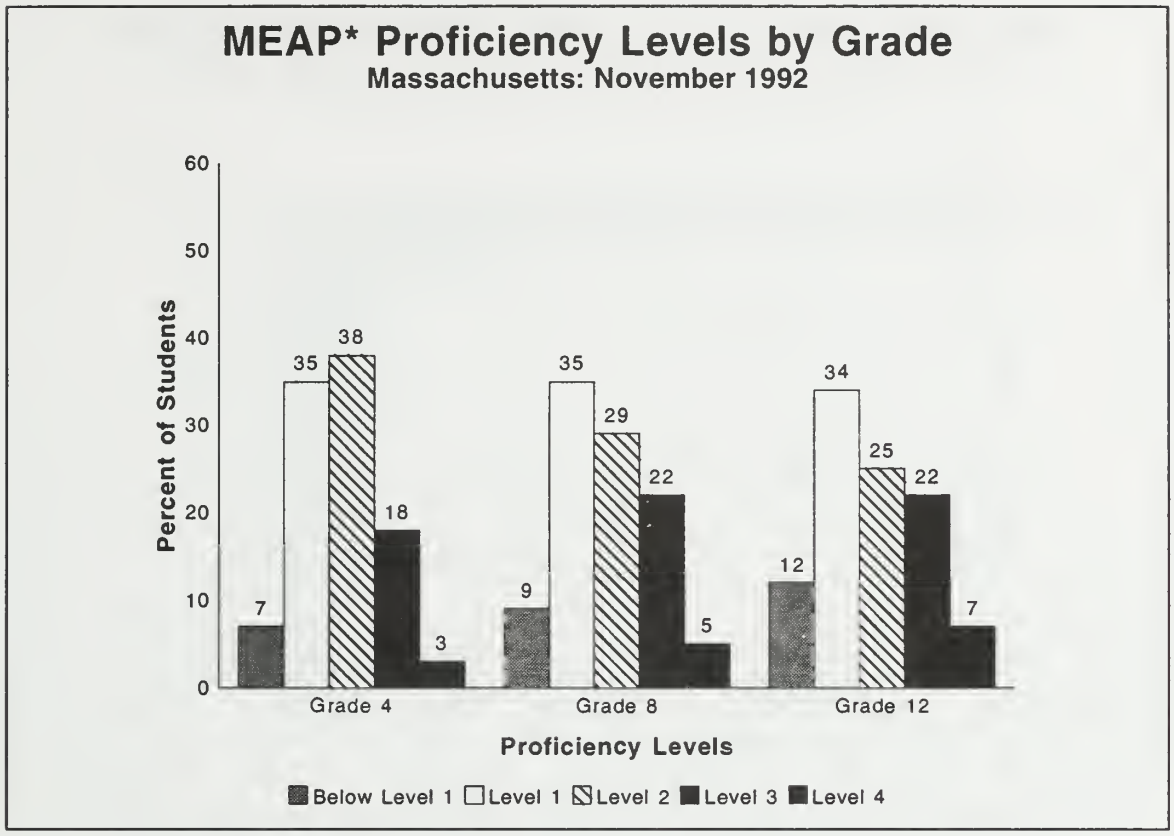
	Number Retained	Number Enrolled	Percent Retained
Grade Level Grouping			
Grades PK-3	5,645	292,928	1.9%
Grades 4-5	379	129,856	0.3%
Grades 6-8	2,246	183,097	1.2%
Grades 9-12	9,464	230,170	4.1%
Race/Ethnicity			
White (non-Hispanic)	10,159	673,172	1.5%
Black (non-Hispanic)	3,378	65,226	5.2%
Hispanic	3,402	67,076	5.1%
Asian	646	29,157	2.2%
Native American	149	1,420	10.5%
Sex			
Male	10,784	429,550	2.5%
Female	6,950	406,501	1.7%
TOTAL Grades PK-12	17,734	836,051	2.1%

Source: Evaluation, Planning, and Research Group, Massachusetts Department of Education.

- A total of 17,734 (2.1%) of the Commonwealth's public school students were retained in grade for the 1991-1992 school year. This was an improvement over the 1989-1990 school year when 3.5% of public school students repeated a grade.

- White students represent 80.5% of the student population and 57.3% of students retained; black and Hispanic students each represent approximately 19% of the population and 7.8% and 8%, respectively, of students retained. Asian students represent 3.5% of the population and 3.6% of students retained. American Indian students represent 0.2% of all students and 0.8% of those retained.

- Students grades 9-12 were retained in grade more often than students in other grades. Males were retained more often than females.



Source: **The Massachusetts Educational Assessment Program: 1992 Statewide Summary*, Evaluation, Planning, and Research Group, Massachusetts Department of Education.

Massachusetts Educational Assessment Program Proficiency Levels:

In 1992, 57,970 students in grade 4, 51,859 in grade 8, and 45,834 in grade 12, completed the educational assessment tests.

Below Level 1: Describes students who were able to respond to a very few multiple-choice questions and were unable to interpret or respond to open-ended questions.

Level 1: Describes students at the "novice" level of learning who were capable of responding to simple, familiar material which is presented in a highly structured format (i.e., multiple-choice questions), but failed to recognize the requirements of unfamiliar tasks.

Level 2: Describes students who have mastered the basic components of the grade-appropriate curriculum. They respond adequately in response to structured questions; however, when asked to generate their own respond, their responses seldom go beyond the minimally acceptable and may indicate major misconceptions.

Level 3: Describes students who have mastered the underlying principles of the grade-appropriate curriculum. They reason and communicate clearly, and can apply their knowledge in a variety of contents.

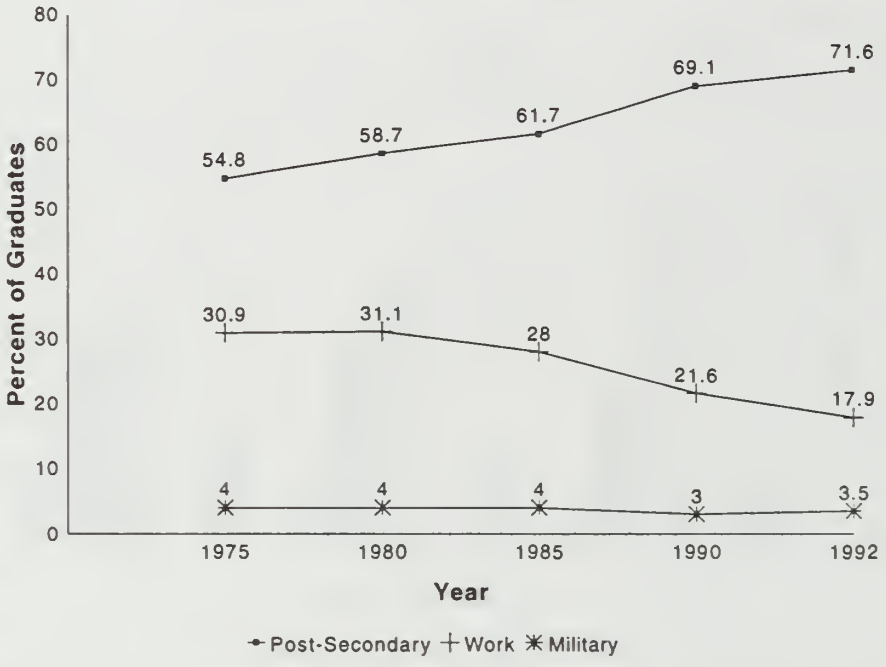
Level 4: Describes students who possess a broad and detailed base of knowledge that goes beyond the traditional curriculum. Their ability is sophisticated for their age level, as is their ability to communicate their reasoning.

- 58% of fourth graders who took the assessment test in 1992 had mastered the basic components of their curriculum (Level 2); 1 in 5 (21%) had mastered the underlying principles of their school's curriculum (Level 3). Over one third of 8th and 12th graders were assessed at Level 1 and could respond to simple, familiar, material presented in a highly-structured format. The percentage of students at the lowest level of proficiency was highest among the 12th graders (12%).

- The percentage of students at the highest level of proficiency (Level 4) was highest among the 12th grade students (7%) and lowest among the 4th graders (3%).

Career Plans of Public High School Graduates

Massachusetts: Class of 1975-Class of 1992



Sources: *Plans of High School Graduates: Class of 1991*, and unpublished data, Evaluation, Planning, and Research Group, Massachusetts Department of Education.

- The percent of Massachusetts public high school graduates who plan to attend college or receive other post-secondary education has increased, from 54.8% in 1975 to 71.6% in 1992.

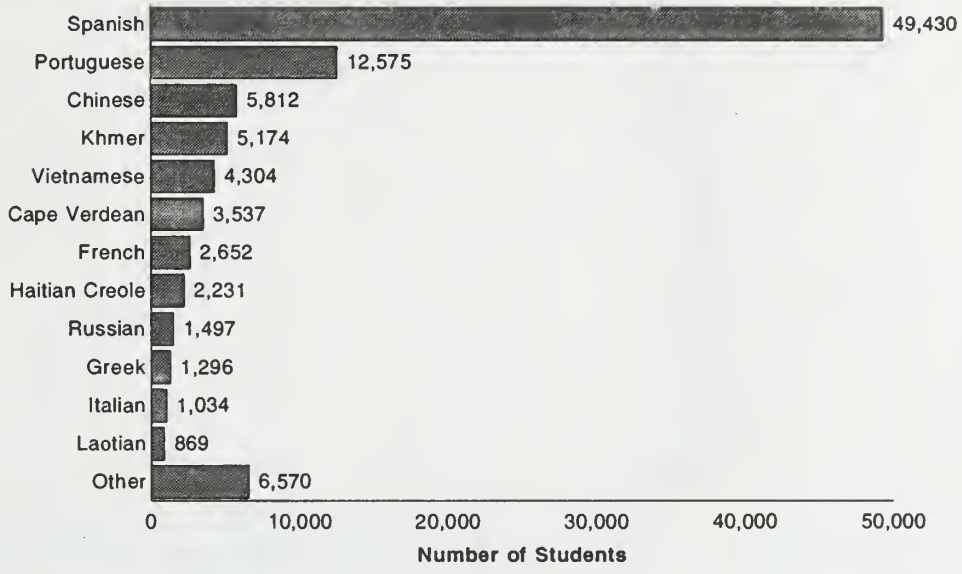
- Of the 50,323 students graduating from Massachusetts public schools in 1992, 48.9% identified attendance in a 4-year college as their main career plan, 19.5% planned to attend a 2-year college, and 3.2% planned other post-secondary education (data not shown).

- The percent of students planning to work and not pursue further education decreased from 30.9% in 1975 to 17.9% in 1992.

- The percent of students planning to enter the military upon graduation remained fairly constant between 1975 and 1992.

Number of Public School Students Whose First Language Is Not English, Ages 3-21

Massachusetts: 1992-1993 School Year



N = 96,981

Source: Evaluation, Planning, and Research Group, Massachusetts Department of Education.

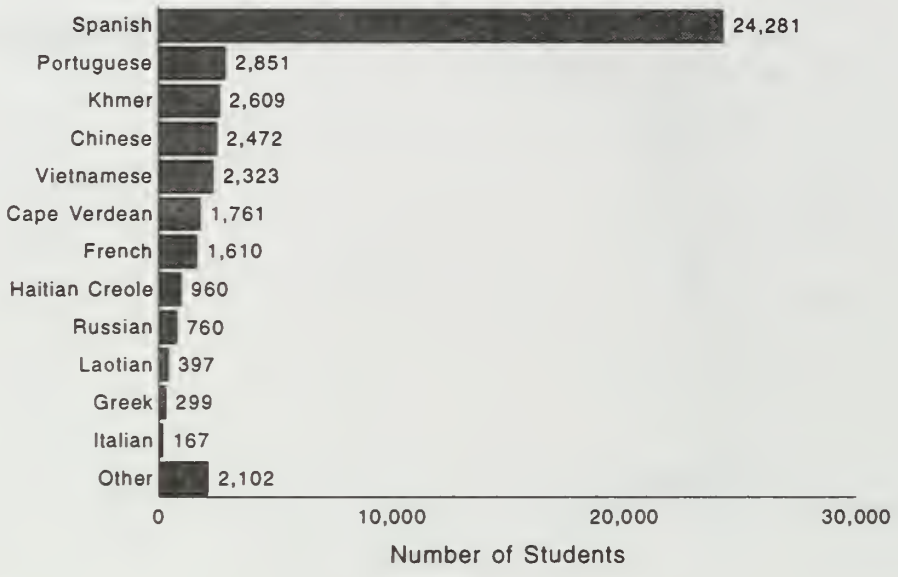
- In the 1992-1993 school year, 11.3% of all students enrolled in Massachusetts public schools had a native language other than English.

- Among students whose first language was not English, 66,853 (68.9%) were 3-13 years old and 30,135 (31.1%) were ages 14-21 (data not shown).

- About one half of all students whose first language was not English spoke Spanish as their first language (50.9%), 13.0% spoke Portuguese, 10.7% spoke a Southeast Asian language (Khmer, Vietnamese, Laotian) and 6.0% spoke Chinese; the remaining 19.4% spoke one of ninety-three other languages.

Number of Public School Children Who Cannot Perform Classwork in English by First Language

Massachusetts: 1992-1993 School Year



N = 42,592

Source: Evaluation, Planning, and Research Group, Massachusetts Department of Education.

- In the 1992-1993 school year, 42,592 public school students could not perform classwork in English.
- Of these students, 57.0% spoke Spanish as their primary language, 6.7% spoke Portuguese, 6.1% spoke Khmer, 5.8% spoke Chinese, and 24.4% spoke other languages.

NOTE: Limited English proficient students are those whose first language is not English and who are unable to perform ordinary classwork in English.

Special Education Public School Students by Age and Program Prototype
Massachusetts: 1992-1993 School Year

Program Prototype*	Age in Years					TOTAL	
	3-5	6-11	12-14	15-17	18-21	Number	%
502.1 Modified	526	7,360	3,917	3,376	541	15,720	10.6%
502.2 Integrated	2,707	37,222	15,112	13,035	2,301	70,377	47.6%
502.3 25-60% Separate	261	9,125	7,111	4,856	1,053	22,406	15.2%
502.4 Separate Teacher	1,356	12,073	5,788	3,408	1,690	24,315	16.5%
502.4i Separate Facility	50	360	583	1,157	421	2,571	1.7%
502.5 Day School	109	1,007	1,036	1,282	679	4,113	2.8%
502.6 Residential	1	108	165	276	311	861	0.6%
502.7 Home or Hospital	17	152	164	290	112	735	0.5%
502.8 Pre-School	6,605	28	1	0	0	6,634	4.5%
TOTAL	11,632	67,435	33,877	27,680	7,108	147,732	100.0%

* For definition of program prototypes see Glossary
Source: Evaluation, Planning, and Research Group, Massachusetts Department of Education.

Under the Massachusetts special education law, Chapter 766, all children ages 3-21 have the right to an educational program that assures their maximum possible development no matter what type or degree of handicap they may have. Children are eligible for special education services if they have a disability consisting of a developmental delay or an intellectual, sensory, neurological, emotional, communication, physical, specific learning or health impairment or a combination of such factors.

- During the 1992-1993 school year, 147,732 public school students, 17.1% of enrolled students, received Chapter 766 special education services.

- Nearly half (45.6%) of all special education students were 6-11 years old; the smallest percent were in the 18-21 age group (4.8%).

- Almost 32% of special education students spent 25% or more of their time receiving special education services outside the regular classroom; 15.2% spent 25-60% of their time outside the classroom, and 16.5% spent most of their time in a classroom taught by a special education teacher. Approximately 58% of students spent less than 25% of their time in special education classes.

Special Education Public School Students by Race/Ethnicity and Program Prototype
Massachusetts: 1992-1993 School Year

Program Prototype+	Race/Ethnicity					TOTAL
	White*	Black*	Hispanic	Asian*	Native Amer.*	Number
502.1 Modified	13,739	1,055	797	115	14	15,720
502.2 Integrated	61,029	4,718	3,846	698	86	70,377
502.3 25%-60% Separate	16,387	2,736	3,018	225	40	22,406
502.4 Separate Teacher	16,649	3,872	3,443	313	38	24,315
502.4i Separate Facility	1,829	392	324	21	5	2,571
502.5 Day School	2,975	729	365	41	3	4,113
502.6 Residential	744	51	51	15	0	861
502.7 Home or Hospital	562	111	55	6	1	735
502.8 Pre-School	5,622	500	428	82	2	6,634
TOTAL	119,536	14,164	12,327	1,516	189	147,732
Percent within Race/Ethnicity	17.4%	20.6%	16.8%	4.9%	13.7%	17.1%

+ For definition of program prototypes see Glossary
* non-Hispanic
Source: Evaluation, Planning, and Research Group, Massachusetts Department of Education.

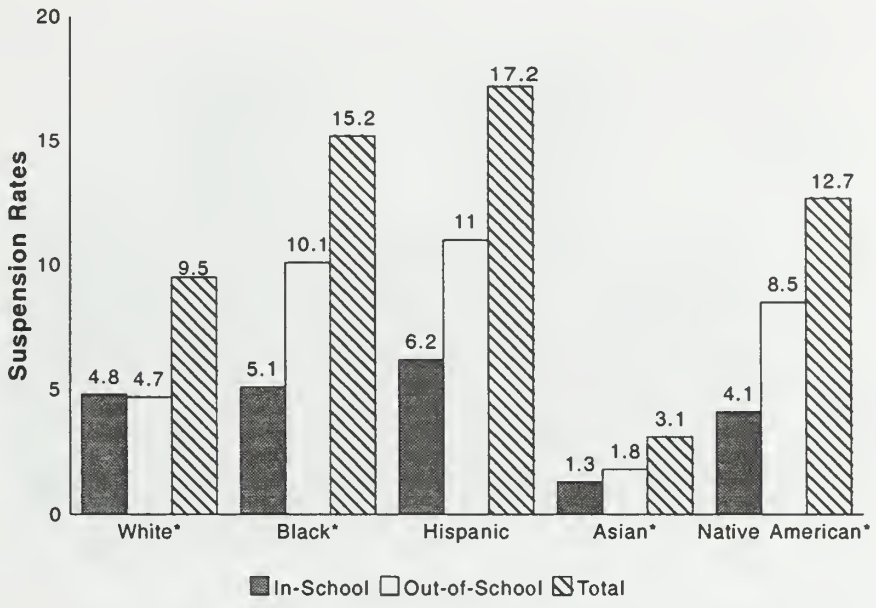
- Among public school students receiving special education services during the 1992-1993 school year, 80.9% were white, 9.6% black, 8.3% Hispanic, 1.0% Asian and 0.1% were Native Americans.

- The distribution of special education students varied by race/ethnicity among the different types of programs. White special education students were the most likely to be mainstreamed in the modified or integrated programs (63.6%), followed by Asian special education students (53.6%), Native Americans (52.9%), blacks (40.7%) and Hispanics (37.7%)

- Almost 32% of the students receiving special education services received those services outside of the classroom 25-60% of the time or were taught by a special education teacher education teacher. Nearly 71% of these students were white non-Hispanic. Within race and ethnicity, 27.6% of white non-Hispanic students, 46.6% of black non-Hispanic students and 52.4% of Hispanic students were placed in these program prototypes.

Public School Suspension Rates by Type of Suspension and Race/Ethnicity

Massachusetts: 1991-1992 School Year



* non-Hispanic

Source: Evaluation, Planning and Research Group, Massachusetts Department of Education.

- Of the total 86,347 public school suspensions during the 1991-1992 school year, 63,771 occurred among white non-Hispanic students, 11,559 among Hispanic students, 9,936 among black non-Hispanic students, 900 among Asian students, and 181 among Native American students.

- Hispanic students had the highest rate of public school suspensions, 17.2 per 100 Hispanic students; followed by black non-Hispanic students, 15.2; Native American students, 12.7; and white non-Hispanic students, 9.5. Asian students had the lowest suspension rate, 3.1 per 100 Asian students.

- The ratio of male to female public school suspensions was roughly 7 to 3; that is, for every seven suspensions given to boys, three were given to girls. This was true for both in-school and out-of-school suspensions (data not shown).

NOTE: Race/ethnicity-specific suspension rates were calculated by dividing the number of public school suspensions given to students of a particular race/ethnicity by the population of students in that race/ethnicity group. Any student may have been suspended more than once during the year; therefore the numbers refer to numbers of suspensions rather than numbers of students. During in-school suspensions, suspended students remain in school during the suspension period but are removed from academic classes and are placed in a separate environment, supervised by a teacher or by other school staff. During out-of-school suspensions, suspended students are prohibited from attending school during the suspension period, which may last up to ten consecutive days.

Per Pupil Expenditure for Public School Students by Type of Educational Program

Massachusetts: 1991-1992 School Year

Source: *1991-1992 Per Pupil Expenditures by Program*, Information and Outreach Services, Massachusetts Department of Education.

- During the 1991-1992 school year, public school educational expenditures in Massachusetts totaled $4,254,852,025 (data not shown).
- On average, public schools spent $4,858 per enrolled student.
- The average per pupil expenditure was highest in occupational day programs, followed by special needs programs and bilingual education programs. The per pupil expenditure was $4,101 for public school students enrolled in regular day programs.
- During the 1991-1992 school year Massachusetts spent approximately 3 billion dollars for students in regular day programs, 324 million dollars for students in special needs programs, 120 million dollars for students in bilingual programs, and 244 million dollars for students in occupational day programs.

Part Six

Selected Support Services for Children and Families

Part Six describes child and family participation in a variety of programs which support Massachusetts children and families, including programs which receive both state and federal funding. Data are included on nutritional support programs such as Food Stamps, the Special Supplemental Food Program for Women, Infants and Children (WIC), and the National School Lunch and Breakfast programs as well as on programs which support children's development such as Early Intervention and Head Start programs. The availability of subsidized child care slots is included in this section. The number of Medicaid recipients is presented by age and race/ethnicity, revealing variation by race/ethnicity group in the percentage of recipients under 20 years of age.

The numbers of children and families involved in these programs are a measure of the need for services currently being met; unmet need is difficult to quantify accurately. Many programs have financial eligibility criteria which may be used as a surrogate measure for poverty.

Aid to Families with Dependent Children Caseload
Massachusetts: September 1993

Caseload Type	Number	% Change From 1992
TOTAL Recipients	319,606	+ 2.2%
TOTAL Cases (households)	113,733	+ 2.7%
Basic	107,586	+ 2.8%
Unemployed Parent	6,147	+ 1.9%

Source: Policy Unit, Massachusetts Department of Public Welfare

Aid to Families with Dependent Children (AFDC) is a 50% federally funded public assistance program administered by the Massachusetts Department of Public Welfare. The federal government determines eligibility criteria, while the state determines the amount of money each eligible person will receive in benefits. The cash assistance program is available to families with needy children deprived of support by an absent, deceased, incapacitated, or unemployed/underemployed parent. It is also available to certain caretaking relatives and pregnant women.

- In September of 1993, a total of 113,733 households, representing 319,606 Massachusetts residents, received assistance through the AFDC program.

- The average grant size that month was $513.69 per household, a very slight decrease of 37 cents from the previous year's grant size during the same month.

- Of the 113,729 households with known race/ethnicity information on the head of the household, 52.6% (59,776) were white, 25.6% (29,083) were Hispanic, 17.3% (19,724) were black, 4.3% (4,834) were Asian, and 0.3% (312) were American Indian (data not shown).

- Close to one half of the AFDC caseload (50,988 households) had been receiving aid for less than three years; 29,389 households had been receiving aid for more than five years. 24.6% white non-Hispanic, 29.6% black non-Hispanic, 27.0% Hispanic, 19.9% Asian, and 11.9% American Indian households were receiving AFDC in excess of 5 years (See Appendix C for data table).

Food Stamp Caseload
Massachusetts: September 1993

Caseload	Number	% Change From 1992
TOTAL Recipients	444,182	+2.0%
TOTAL Cases (households)	190,156	+ 3.1%
Receiving other Public Assistance	106,827	+ 1.1%
Not receiving other Public Assistance	36,934	+ 1.6%
Receiving Supplemental Security Income (SSI)	46,395	+ 9.3%

Source: Policy Unit, Massachusetts Department of Public Welfare

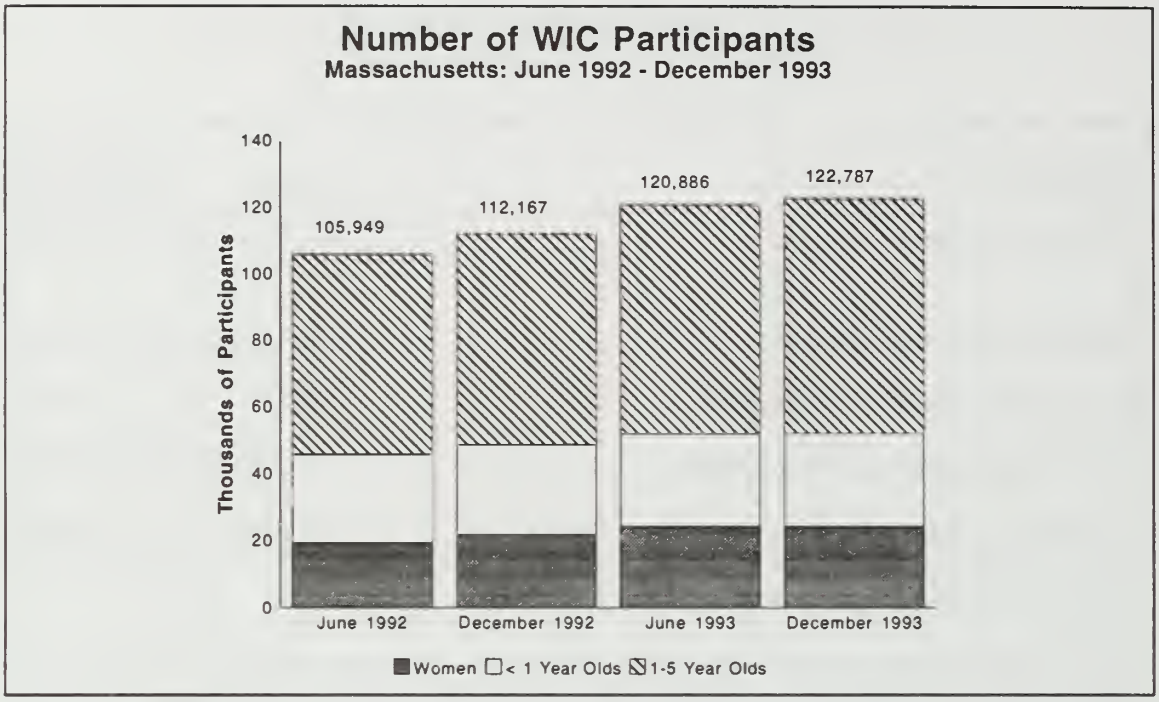
The federally funded Food Stamp Program, run by the Massachusetts Department of Public Welfare, provides food coupons on a monthly basis to eligible low-income households.

- In September 1993, 190,156 households in Massachusetts received assistance through the Food Stamp Program. The number of individual Food Stamp recipients was 444,182 for that month.

- Nearly one fifth (19%) of households receiving food stamps received no other form of public assistance or income supplement.

- The number of households on the Food Stamp caseload increased 3.1% from the previous year, and the number of recipients increased 2.0%.

- In mid-January, 1994, the total number of recipients under age 18 years of age receiving food stamps was 223,406. During that month, one half (50.5%) of all food stamp recipients were children. One in two of these children were white (109,692); over a quarter were Hispanic (63,895), and one in six was black (37,085). About one in twenty (5.5%) children was Asian (12,287), and 0.2% (447) were American Indian.



Source: WIC Program, MDPH

The Special Supplemental Food Program for Women, Infants and Children (WIC), administered by the Massachusetts Department of Public Health, provides supplemental foods and nutrition education to low and moderate income women, infants and children who are at nutritional risk.

- In December 1993, there were 122,787 individuals receiving WIC benefits, an increase of 15.9% in the total caseload since June 1992, made possible by increased appropriations for the program. Of the total, 24,200 (19.7%) were pregnant or postpartum women, 28,064 (22.9%) were infants less than one year old, and 70,523 (57.4%) were children ages 1 to 5.

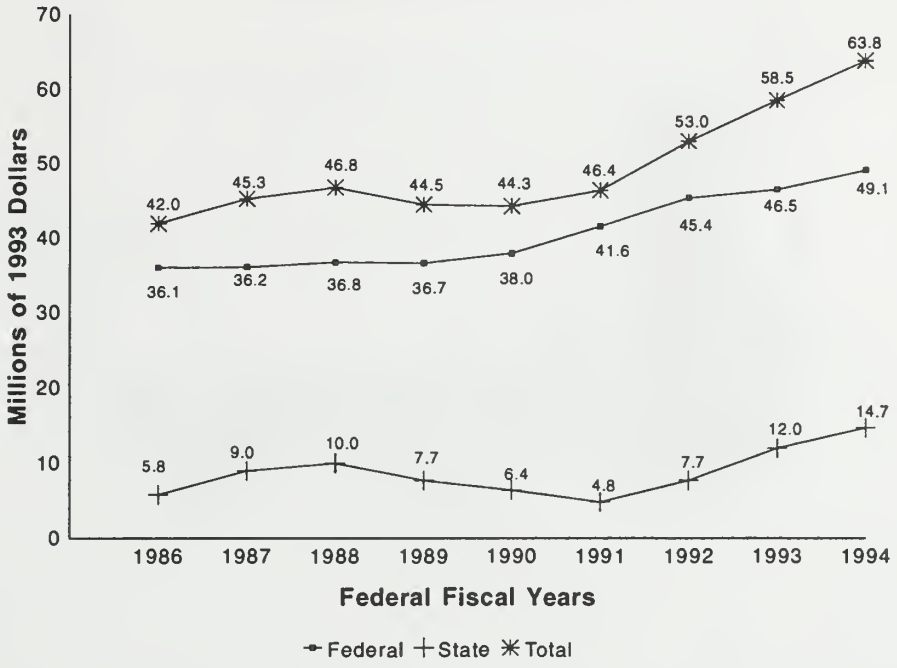
- While infants and children constitute the majority of WIC participants, the largest increase in participation between June 1992 and December 1993 was among women (25.6%). This compares to a 17.3% increase in children and a 5.7% increase in infants.

- In December 1993, 45.1% (31,789) of children participating in the WIC Program were white, 28.4% (20,032) were Hispanic, 20.2% (14,226) were black, 6.1% (4,336) were Asian, and 0.2% (138) were American Indian. Infant participants followed a similar distribution (data not shown).

- In June 1993, 73.0% of the eligible infants and children were served by WIC; this percent is up from June 1991 (59.1%).

Federal and State Funding for WIC Program

Massachusetts: FFY 1986 - FFY 1994



Source: WIC Program, MDPH

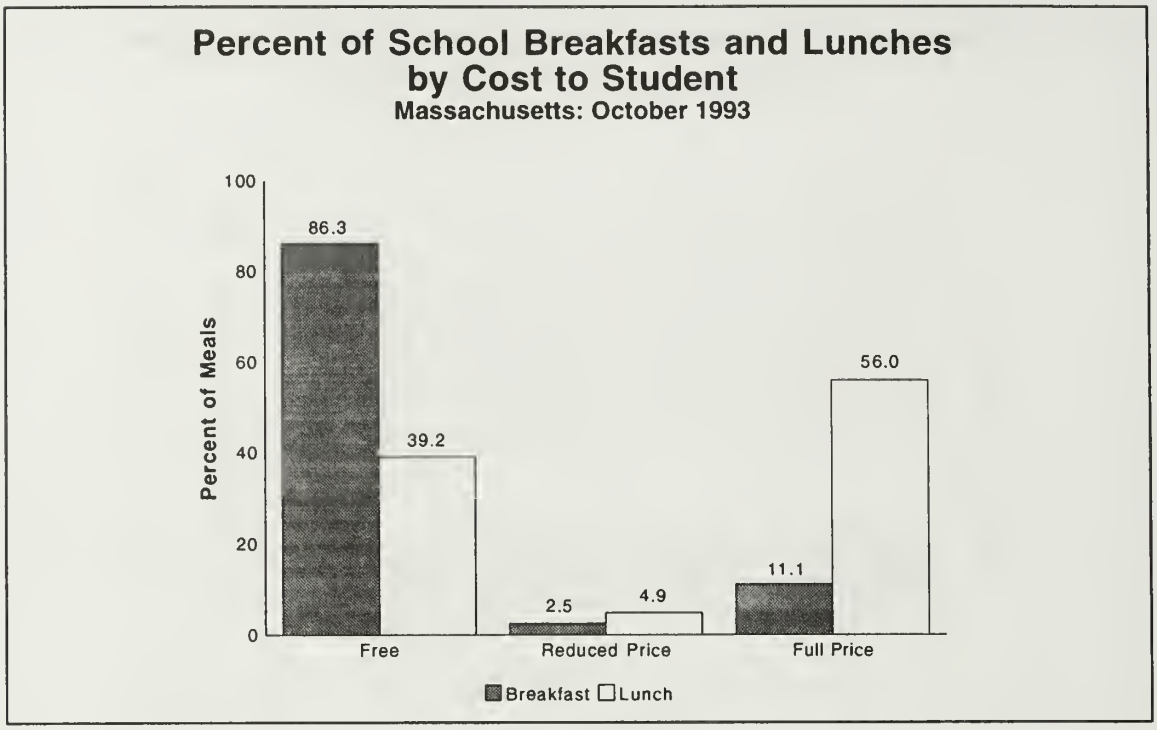
- From federal fiscal years 1986 to 1989, federal funding for the Massachusetts WIC program remained nearly constant; fluctuations in the total funding were a result of changes in the level of funding provided by the Commonwealth.

- In contrast, from 1991 to 1994, total WIC funding has increased by 37.5%, as a result of increases in both state and federal dollars appropriated for the WIC Program.

- Recent increases in federal and state appropriations allowed the WIC Program to extend its services to a greater percentage of those eligible to receive program benefits, as shown by the increases in the WIC caseload on the previous page. The extension of WIC benefits to more persons was also made possible, to a lesser extent, by relatively stable food costs (lower inflation rates) in recent years.

- As of April 1992, the Massachusetts WIC Program does not have a waiting list and is serving all priority categories as defined by federal policy based on nutritional risk criteria.

NOTE: Federal Fiscal Year (FFY) is from October 1st to September 30th. The annual average Northeast region Consumer Price Indexes for Urban consumers (CPI-U) were used to adjust annual dollars to 1993 dollars. See Appendix B. for the annual CPI-U values.



Source: Nutrition Programs and Services, Massachusetts Department of Education

The National School Lunch Program offers nutritious, low-cost lunches to all children in Massachusetts public schools; private schools may offer the lunch program voluntarily. The School Breakfast Program, offered by participating public and private schools, provides nutritious, low-cost breakfasts. Any child may receive a school meal by paying the full price of the meal or by qualifying for free or reduced-price meals. School meal programs are primarily federally-funded and administered by the Massachusetts Department of Education.

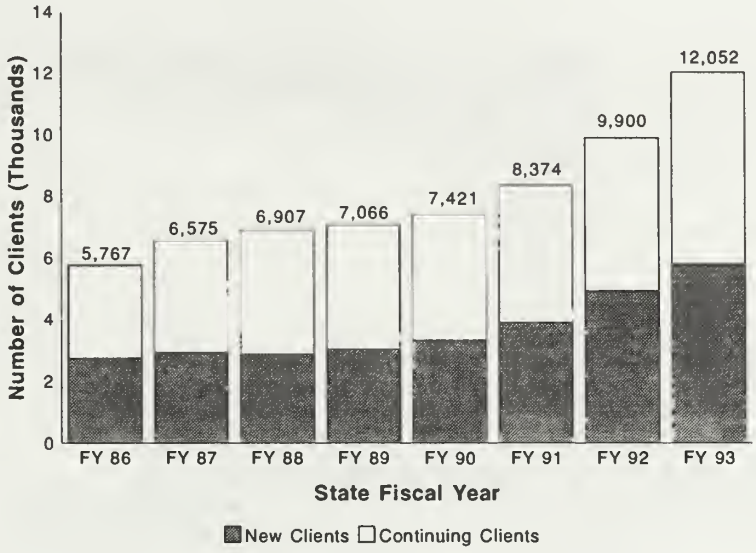
- A total of 8,200,030 lunches and 1,536,319 breakfasts were served to Massachusetts public and private school children during October, 1993.

- Of the lunches served during October, slightly fewer than half were subsidized: 39.2% (3,212,670) were free of charge and 4.9% (398,723) were provided at reduced prices. Nearly 90% of breakfasts were provided free of charge (1,326,609) or at reduced prices (38,957).

- During the 1992-1993 school year, approximately 69,647,542 school lunches were served, of which 27,413,458 were provided free of charge and 3,372,246 were at reduced prices (Massachusetts Department of Education). Schools served an average of 190,009 free and reduced-price lunches, and an average of 68,469 free and reduced-price breakfasts daily during the school year (Source: *School Breakfast Score Card, 1992-1993*, Food Research and Action Center, October, 1993).

Number of New and Continuing Clients Enrolled in the Early Intervention Program

Massachusetts: FY 1986 - FY 1993



Source: Early Intervention Program, MDPH

The Massachusetts Early Intervention Program (EI) provides integrated developmental services in community-based programs statewide to children between the ages of birth and three years whose developmental patterns are atypical, or are at serious risk to become atypical, through the influence of certain biological or environmental factors. EI is administered by the Massachusetts Department of Public Health and receives both federal and state funding.

- The total number of children served by the EI Program steadily increased from FY 1986 to FY 1993. There was an increase in the number of clients from FY 1990 to FY 1993, due in part to the passage of legislation in 1992 which broadened program support.

- During FY 1993, a total of 12,052 children were enrolled in the EI Program. Of these children, nearly half (48.1%) were new admissions to the program.

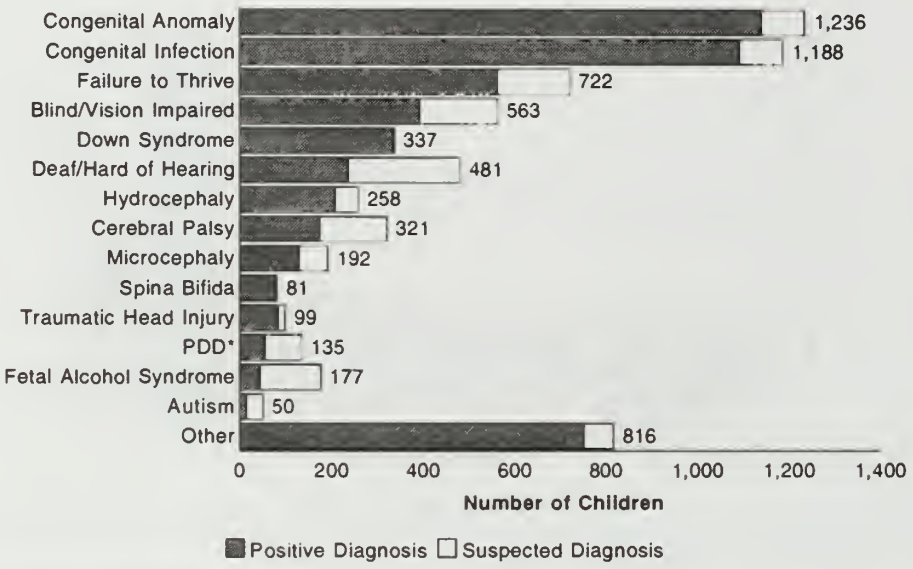
- Of the 11,239 children with known race/ethnicity, 69.2% were white (7,774); 14.2% were black (1,595), 14.2% were Hispanic (1,602), 2.4% were Asian (268), and 4.8% (544) were of other race/ethnicity.

- 42.7% of all children enrolled in EI had an established developmental delay, 43.2% had a biological risk factor, and 62.9% had an environmental risk factor. Some children had more than one type of risk factor (data not shown).

NOTE: The state fiscal year (FY) is from July 1 through June 30.

Children Enrolled in the Early Intervention Program by Medical Syndrome or Disorder

Massachusetts: FY 1993



*PDD= Pervasive Developmental Disorder
N= 12,052

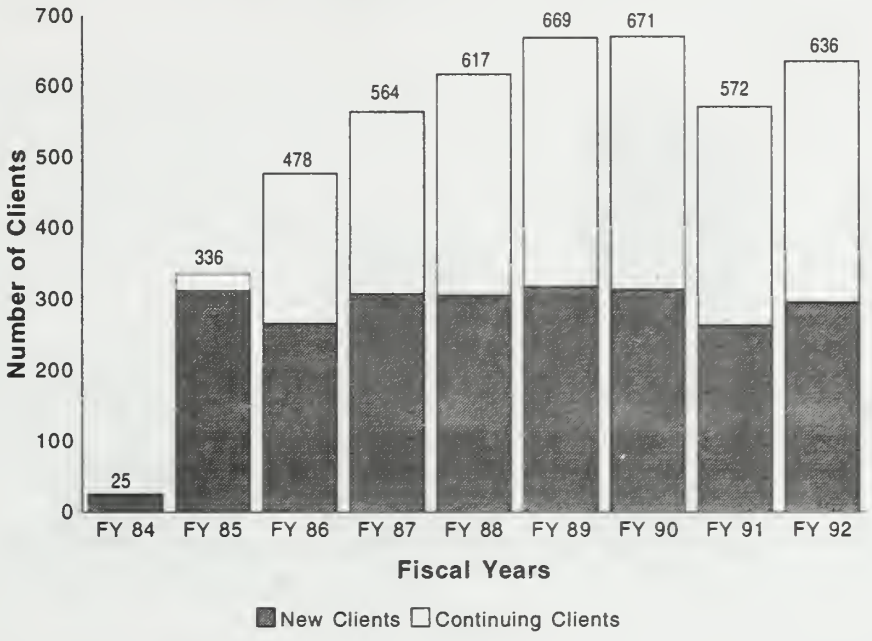
Source: Early Intervention Program, MDPH

- Of the 12,052 children enrolled in the Early Intervention Program in FY 1993, approximately one in three (34.1%) children had at least one suspected or confirmed medical syndrome or disorder (data not shown).

- The most prevalent suspected or confirmed medical condition was congenital anomaly (10.3%), followed by congenital infection (9.9%). Children may have had more than one medical syndrome or disorder.

Number of New and Continuing Clients Enrolled in the Growth and Nutrition Program

Massachusetts: FY 1984 - FY 1992



Source: Growth and Nutrition Program, MDPH

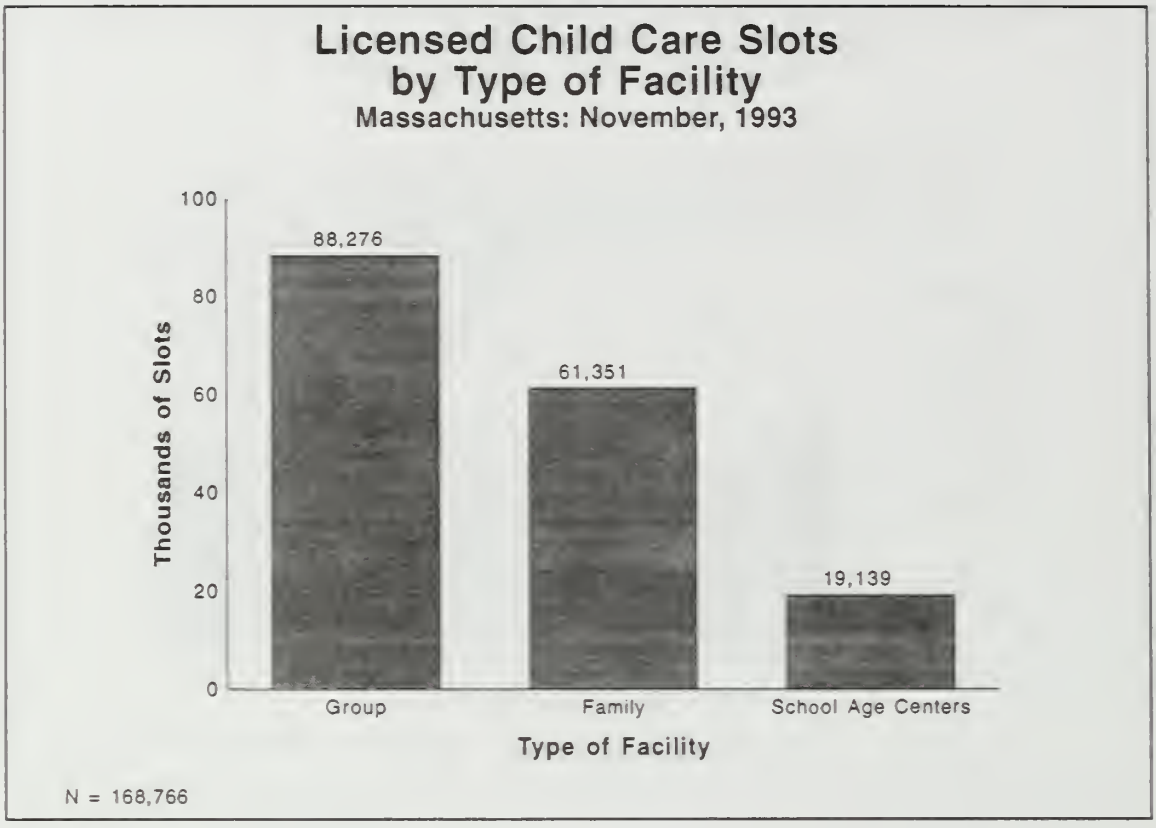
The state-funded, Massachusetts Department of Public Health-administered Growth and Nutrition (GN) Program provides multidisciplinary services to Massachusetts children under 6 years of age with failure-to-thrive (FTT). FTT, or undernutrition, is a serious condition in children characterized by growth delay and often accompanied by excessive morbidity, delays in cognitive development, and behavioral and social problems.

- From the program's inception in FY 1984, through FY 1992, 2,434 children received evaluation and treatment at Growth and Nutrition clinics. Since the first full year of program funding in FY 1985, an average of 568 new and continuing children were seen each year. Approximately half of the children seen each year are new clients.

- Over three fourths of the children seen in the Growth and Nutrition (GN) clinics were under age 3 at the time of their initial visit (data not shown).

- Over one quarter (28%) of the children had a history of low birthweight (data not shown).

- Approximately 51% of children seen in the GN clinics are discharged within eight months of initiating services and 71% are discharged within twelve months.



Source: Massachusetts Office For Children

Group Day Care: Nonresidential licensed facilities serving more than six children.
Family Day Care: Care provided by an Office for Children-licensed individual in a private residence, other than the child's home.
School Age Centers: Centers for children enrolled in grades kindergarten through sixth grades, before and/or after regular school hours.

- 168,766 licensed child care slots were available to Massachusetts children in November, 1993.

- Of the available child care slots, over half (52.3%) were in group child care facilities, over a third (36.4%) were in the homes of family child care providers and 11.3% were in school-age center sites.

- In November of 1993, a total of 14,708 licensed facilities provided child care in Massachusetts. The majority of facilities were family child care sites (82.4%), followed by group child care sites (14.1%) and school-age center child care sites (3.5%) (data not shown).

Number of Slots within Group Child Care Centers by Age of Child Massachusetts: November 1993

Slots by Age of Eligible Child	Maximum Number of Slots
Infant (under 15 months old)	3,084
Toddler (ages 15 - 33 months)	8,582
Preschool (ages 34 months to school age)	72,263
School-age	1,848
Mixed ages	2,499
TOTAL NUMBER OF SLOTS	88,276

Source: Massachusetts Office For Children

- In November, 1993, a total of 88,276 licensed child care slots were available in Massachusetts group child care centers.
- The largest number of slots was for preschool children (81.9% of group child care capacity).
- One in ten (9.7%) slots was designated for toddlers; only 3.5% of slots in group centers were specifically licensed for infants.
- Less than 3% of licensed group center slots (2,499) were designated as "mixed ages." For this group, the number of available staff members determines the number of children within each age group allowable at a center, up to the total number of slots licensed for that center. The ages of the children filling these slots may change on a daily basis depending on the level of staffing.
- An additional 1,848 slots at 308 group child care centers were available for school-age children who had a younger sibling enrolled at the center.

Number of Subsidized Child Care Slots by Type of Subsidy Massachusetts: FY 1994

Type of Care	Number of Subsidized Slots
Contracted Child Care:	
Basic Child Care	8,934
Family Preservation Child Care	4,245
Services for Teen Parents and Their Children	374
Voucher Child Care:	
MassJobs Vouchers	13,459
Income Eligible Vouchers	1,940
TOTAL	28,952

Source: Executive Office of Health and Human Services, Commonwealth of Massachusetts

Contracted Child Care: is offered to children by licensed providers responsible for providing care, protection, and supervision for children outside of their own home during some portion of the day on a regular basis. Providers are paid an established daily rate and contracts are held with the Department of Social Services (DSS).
Basic Child Care: is administered by DSS as a service primarily for children of low-income families whose parents work or attend training. Families with special needs, a documented incapacity of either parent or child, are also eligible for this assistance.
Family Preservation Child Care: is administered by DSS and provides the components of Basic Child Care as well as on-site social services and transportation for children with protective needs. Family Preservation is offered to protect children from further abuse and neglect.
Services for Teen Parents and Their Children: is administered by DSS to support teen parents completing high school and receiving training or working. Basic child care, social services and transportation are provided for teen parents and their infants and toddlers.
Voucher Child Care: is funded by the Department of Public Welfare through the Child Care Resource Agencies (CCRA), a statewide network of 13 agencies that hold sub-agreements with private child care providers. MassJobs participants and low-income families may obtain vouchers through the CCRAs.
MassJobs Vouchers: are for children whose parents participate in the MassJobs program or are recent MassJobs graduates.
Income Eligible Vouchers: are for children in low-income working families who need this support in order to work or complete training.

- In FY 1994, the Commonwealth of Massachusetts subsidized nearly 29,000 child care slots with a child care budget of $158 million. Eligibility for subsidized child care is based on financial criteria and service needs.

- More than half (53.2%) of the subsidized slots were provided through child care vouchers funded by the Department of Public Welfare. These vouchers give low income families and parents participating in the MassJobs Program choice and flexibility while providing financial assistance for child care.

- The remaining subsidized slots were administered through the Department of Social Services. Nearly one in three (30.9%) subsidized slots was for basic child care for low income children, 14.7% for Family Preservation child care and 1.3% for care for the children of teenage parents.

Head Start Funding and Enrollment
Massachusetts: FFY 1989 - FFY 1993

Federal Fiscal Year	FUNDING		ENROLLMENT
	Unadjusted Dollars	Adjusted to 1993 Dollars*	Number of Enrolled Children
1989	25,853,878	30,437,614	9,371
1990	30,730,888	34,135,410	9,377
1991	37,634,418	39,984,918	10,724
1992	42,347,763	43,526,486	10,913
1993	49,615,000	49,615,000	11,406

Source: U.S. Department of Health and Human Services

The federally funded Head Start program provides comprehensive early childhood development, education, health, nutrition, social and other services primarily to low-income preschool children (ages 5 and under) and their families.

- Children ages 3 to 5 represent approximately 98% of the annual enrollment in the Massachusetts Head Start program.

- Over the past five years, the Massachusetts Head Start program received steady annual increases in federal funding. After controlling for increases due to inflation, funding for the Head Start program increased by 63.0% from $30.4 million in FFY 1989 to $49.5 million in FFY 1993.

- During this time the number of Massachusetts children served by the Head Start program also increased. Enrollment grew by 21.7%, from 9,371 in FFY 1989 to 11,406 in FFY 1993.

- Of the 11,406 children enrolled in Massachusetts Head Start programs in FFY 1993, just under half (5,094) were white; approximately one of every four children was Hispanic (3,029) or black (2,604). Asian children represented 5.3% (605) and American Indian children represented 0.6% (74) of enrolled children.

NOTE: The annual average Northeast Region Consumer Price Indexes for Urban Consumers (CPI-U), all items, were used to adjust annual dollars to 1993 dollars. See Appendix B for the annual CPI-U values. Funding levels represent Massachusetts' share of total dollars appropriated for Head Start.

Medicaid Recipients by Age and Race/Ethnicity
Massachusetts: as of December 31, 1993

Age	Race						
	White*	Black*	Hispanic	Asian*	Amer. Indian	Unknown	TOTAL
< 1	6,015	1,809	2,397	557	38	109	10,925
1-4	50,530	16,265	22,743	4,241	316	760	94,855
5-9	49,049	15,080	21,361	4,297	221	578	90,586
10-14	34,628	10,357	16,414	3,829	160	742	66,130
15-19	24,624	7,273	11,573	2,172	123	890	46,655
TOTAL < 20	164,846	50,784	74,488	15,096	858	3,079	309,151
20 and older	258,721	33,236	31,591	7,485	630	7,271	338,934
TOTAL	423,567	84,020	106,079	22,581	1,488	10,350	648,085

* non-Hispanic
Source: Medicaid Management Information Systems, Massachusetts Department of Public Welfare

- As of December 31, 1993, there were 309,151 Massachusetts children under age 20 who were receiving Medicaid. Of these children, 3.5% were infants less than one year old, 30.7% were age 1-4, 29.3% were age 5-9, 21.4% were 10-14, and 15.1% were teens age 15-19.

- Slightly over half (53.3%) of the children under 20 were white; 24.1% were Hispanic, 16.4% were black, and 4.9% were Asian. Less than one percent (0.3%) were American Indian.

- Children under age 20 accounted for slightly less than half (47.7%) of all Medicaid recipients. There was variation by race/ethnicity groups in the percentage of recipients less than 20 years old. Among white recipients, 38.9% were under 20; among Hispanic recipients 70.2% were under 20. Over half of black (60.4%), Asian (66.9%) and American Indian (57.7%) recipients were under 20 years old.

Part Seven

Technical Notes

Race and Ethnicity

The categories of race and ethnicity used in this report are defined according to each data source. Therefore, race and ethnicity may vary by data source. In many sources, the race variable is determined independently from Hispanic or other ethnic heritage. In some cases it is possible to present mutually exclusive categories of race/ethnicity where persons of Hispanic origin are classified separately from white non-Hispanics and black non-Hispanics. In other cases, it is only possible to present data for whites, blacks, Asians, etc. some of whom are Hispanic, as well as for a Hispanic category which includes white Hispanics, black Hispanics, etc.

U.S. Bureau of the Census:

Data on race from the U.S. Bureau of the Census reflect self-classification by individuals according to the race with which they most closely identify. The U.S. Bureau of the Census currently uses five race categories: White; Black; Asian/Pacific Islander; American Indian, Eskimo, or Aleut; and Other. Data on Spanish/Hispanic origin are collected separately from race and derived from a specific question on Hispanic origin. In the 1990 Decennial Census data, individuals counted as Hispanic can be of any race.

Massachusetts Registry of Vital Records and Statistics:

Birth File: Prior to 1989, the race/ethnicity of an infant was assigned by combining information on the race/ethnicity of both parents. Since 1989, Massachusetts has followed the National Center for Health Statistics' recommendation of classifying births according to the self-reported race/ethnicity of the mother. Therefore, beginning in 1989, the race/ethnicity of an infant is identical to the self-reported race/ethnicity of the infant's mother.

Beginning in July 1986, a detailed list of identifiers for ethnicity, which includes Hispanic categories, was added to the birth certificate. Prior to this change, most Hispanics were included with whites and it was not possible to accurately calculate Hispanic-specific rates for factors related to natality. Because Hispanic ethnicity has been asked separately on the birth certificate since 1986, race/ethnicity categories can now be mutually exclusive. The separate categories most frequently used are white non-Hispanic, black non-Hispanic, Hispanic, Asian, other, and unknown.

Death File: Race/ethnicity on the death certificate is specified by the death record informant, such as the spouse or next of kin. Beginning in 1989, a variable identifying Hispanic origin was placed on the Massachusetts death certificate, thus enabling calculation of Hispanic mortality rates.

Other Data Sources:

Other data sources may employ different terms and groupings of race/ethnicity categories. In this report, terminology and groupings are used exactly as they are defined and

classified by each source. Notes in the tables or text document the definitions.

Rates

Age Specific Birth Rate: The number of children born to women in a specific age group divided by the population of women in that age group, multiplied by 1,000.

Infant Mortality Rate (IMR): The number of deaths among infants less than one year old, per 1,000 births.

$$\text{IMR} = \frac{\text{Number of resident infant deaths in one year}}{\text{Number of resident live births in the same year}} \times 1{,}000$$

Neonatal Mortality Rate (NMR): The death rate among infants under 28 days of age, per 1,000 births.

$$\text{NMR} = \frac{\text{Number of resident deaths in a year of infants <28 days old}}{\text{Number of resident live births in the same year}} \times 1{,}000$$

Postneonatal Mortality Rate (PMR): The death rate among infants whose age is at least 28 days but less than one year, per 1,000 births.

$$\text{PMR} = \frac{\text{Number of resident deaths in a year of infants age 28-364 days}}{\text{Number of resident live births in the same year}} \times 1{,}000$$

Teen Birth Rate: The number of children born among females ages 15 to 19 divided by the population of females in that age group, multiplied by 1,000.

1990 Census Data and Adjustments Using the 1990 MARS File

Census Files

Census Summary Tape Files 1 and 2 (STF1, STF2): contain the 100-percent component of the decennial census. Questions addressing six population (demographic) and seven housing characteristics were asked of all persons and housing units. These are known as the census short form questions.

Census Summary Tape Files 3 and 4 (STF3, STF4): contain the sample component of the decennial census. In addition to the questions asked in the 100-percent component, detailed social and economic characteristics as well as a greater number of housing characteristics were asked of a portion of the population. These are known as the census long form questions.

1990 Modified Age, Race and Sex (MARS) File:

The 1990 MARS file was created by the U.S. Bureau of the Census in response to problems involving counts by age and race.

In the 1990 Decennial Census, the "month of age" question was dropped from the questionnaire. Instead of asking for age and month and year of birth only age and year of birth were asked. People were asked to report their age as of April 1, 1990 and not as of the date they filled out the questionnaire. However, demographic analysis indicated that many respondents did not follow this instruction and because the census collection process continued through August 1, 1990, there was a large misreporting of age. Furthermore, there is a documented tendency for respondents to round up their age if they are close to having a birthday. Because of the lack of "month of birth" data, there was no way to derive respondents' true ages as of April 1, 1990. According to the Census Bureau:

> It is likely that approximately 10 percent of persons in most age groups are actually 1 year younger. For most single years of age, the misstatements are largely offsetting. The problem is most pronounced at age 0 (infants under age 1) because persons lost to age 1 may not have been fully offset by the inclusions of babies born after April 1, 1990 and because there may have been more rounding up to age 1 to avoid reporting age as 0 years. (1990 CPH-L-74).

A second problem concerns the counts of individuals by race. In the 1990 Census, nearly 10 million persons nationwide identified themselves as being of "Other" race. This was deemed unacceptable by the U.S. Office of Management and Budget which directed the Bureau of the Census to redistribute those reported in the "other" race group into one of the four major race groups: white, black, American Indian/Eskimo/Aleut, and Asian/Pacific Islander.

The Census Bureau created the MARS file by redistributing persons by age and race. Possible undercounting of persons by race and/or by age was not taken into account. The MARS file includes counts of persons by single years of age by the four major race groups by Hispanic origin. The MARS file modifications were not incorporated in the standard Census products (e.g. the Summary Tape files). As a result, for characteristics such as children living in poverty, the numbers presented in the standard products are likely to underestimate the actual number of children living in poverty.

To provide more accurate information about the population of children in Massachusetts, this report uses 1990 MARS file population counts rather than the counts reported in the 1990 STF1 file. A comparison of MARS file and STF1 population counts are presented in Appendix A. In addition, this report presents "MARS-adjusted" counts for many indicators from the census summary tape files.

Adjustments Using the 1990 MARS File

Age Modifications

Adjustments were made to obtain more accurate counts by age for a specific indicator from the Summary Tape Files. A percent distribution by age was obtained from the 1990 Census STF1 or STF3 counts for the specific indicator and then the percents were applied to the 1990 MARS population counts to calculate a MARS age-adjusted count.

$$\frac{\text{1990 Census count for indicator for age group}}{\text{1990 Census count for age group}} \times \text{1990 MARS count for age group} = \text{MARS-adjusted count for indicator for age group}$$

Race Modifications

Adjustments prescribed by the 1990 MARS file were also made to indicators presenting 1990 Census data by race and ethnicity. Any time an indicator using 1990 Census data was broken down by race, the "Other race" count for that particular indicator was redistributed according to the percentages of the four races reported in the 1990 MARS file.

Example of Methodology

To obtain "MARS-adjusted" counts for an indicator, both race and age counts are adjusted according to the parameters established by the Census Bureau's MARS file. The STF1 file and MARS file are used to calculate denominators and either the STF1 or STF3 file and MARS file to calculate the count for a particular indicator. The following example shows how a statistic from the 1990 Decennial Census STF3 file was recalculated to obtain the number and percentage of Massachusetts children under age 18 who were living in poverty. The successive steps redistribute persons of "Other" race who were living in poverty and were under age 18 into white, black, Asian/Pacific Islander, and American Indian, race categories and correct the portion of the population that is under the age of 18.

- ***MARS adjustment for counts by race group***

1) The percent of "Other" race persons from the STF1 file who are under age 18 and who are represented in each of the four MARS race categories is calculated.

$$\frac{\text{MARS race group R <18 population - STF1 race group R < 18 population}}{\text{STF1 "Other" race group total Population (all ages)}} = \text{Percent of "Other" persons represented in race R group < 18 population}$$

where R= white, black, Asian/Pacific Islander, or American Indian.

Each percentage represents the proportion of "Other" race persons who are reclassified as white, black, Asian/Pacific Islander, or American Indian, *and* are under age 18. These percents do not add to 100% because they are fractions of "Other" race persons of all ages and not of "Other" race persons under age 18. These percents do add up to the total percentage of "Other" race persons under age 18.

2) A distributing factor for each race is calculated. It is equal to the percent of "Other" race persons in race R (as calculated in step 1), divided by the total percent of "Other" race persons who are under age 18 (the total percentage of "other" race persons under age 18, found by adding the percents of the four race groups calculated in step 1) .

$$\frac{\text{Percent of "Other" race persons in race R < 18}}{\text{Total percent of "Other" race persons < 18}} = \text{Distributing factor for race R}$$

3) The distributing factor, calculated in step 2, is used to reallocate children living below the poverty level and of "Other" race (as enumerated in STF3) into one of the four major race groups. The 1990 MARS-adjusted total for each race is equal to:

distributing factor for race group R	x	STF3 "Other" race persons, <18, living below poverty	+	STF3 data: <18 & below poverty for race group R	=	1990 MARS-adjusted total for race group R < 18 living in poverty

where R= white, black, Asian/Pacific Islander, or American Indian.

These numbers represent the number of children under 18 years of age, living below poverty, by race. This distribution process increases the number and percentage of persons with a particular characteristic for the four race groups (white, black, Asian/Pacific Islander, American Indian). It eliminates the group "Other." This distribution has no effect on the number of persons of Hispanic Origin with a particular characteristic.

■ ***MARS adjustment for percentages within race***

4) To express the MARS-adjusted total, found in step 3, of persons under age 18 and below poverty as a percent *within race*, the total number of persons who are under age 18 for whom poverty status is determined must also be adjusted for each race. To do this, step 3 is repeated only using the STF3 totals for persons under age 18, *above and below* poverty, by race.

distributing factor for race group R	x	STF3 "Other" race persons, <18, with known poverty status	+	STF3 < 18, with known poverty status for race group R	=	1990 MARS-adjusted total for race group R < 18, with known poverty status

where R= white, black, Asian/Pacific Islander, or American Indian.

The total number of persons under age 18, by race, from STF1 may be greater than the total number of persons under age 18 with known poverty status, due to variations in response between decennial census questions and differences in the STF1 and STF3 data (100% count vs. sample count).

5) The percent of persons under age 18 and living below poverty within each race is calculated using the race totals found in steps 3 and 4. The percent distribution of persons less than 18 years of age living in poverty, within each race, is equal to the MARS-adjusted total persons under age 18 living below poverty for each race, calculated in step 3, divided by the MARS-adjusted total persons under age 18 with known poverty status for the corresponding race, as calculated in step 4.

$$\frac{\text{MARS-adjusted total for race group R of persons < 18 living in poverty}}{\text{MARS-adjusted total for race group R of persons < 18 with known poverty status}} = \text{MARS-adjusted percent for race group R < 18 living in poverty}$$

- ***MARS adjustment for age***

6) A more accurate estimate of children under age 18 below poverty, by race, is obtained when taking the MARS-adjusted percents, from step 5, and multiplying them by the MARS population counts for each race. These are more accurate because steps 1 through 5 made race modification adjustments, by re-distributing "Other" race persons, whereas this step accounts for age modifications made in the 1990 MARS file.

MARS-adjusted percentage for race group R < 18 living in poverty **x** MARS population count for race group R **=** MARS-adjusted count for group race R < 18 and living in poverty

Step 6 produces the final "MARS-adjusted" count.

- ***Hispanic Origin***

Because the Hispanic ethnicity question is asked separately of race, redistributing the "Other" race category need not be done. Numbers for persons of Hispanic and Not Hispanic Origin need only be adjusted for age.

STF3 percent of Hispanic Origin persons by age group, living in poverty **x** MARS number of Hispanic Origin persons by age group **=** MARS-adjusted number of Hispanic Origin persons by age group living in poverty

- ***Number of Children Living in Poverty in Massachusetts***

The following table presents a comparison of the numbers presented in the standard census products (Summary Tape Files 1 and 3) and the numbers which result using the MARS-adjustment procedures described in this section.

Children under Age 18 Living in Poverty by Race

Massachusetts: 1989

Race	Count of Children by Race		Count of Children Living in Poverty by Race	
	STF1 Count	MARS estimate count	STF3 count	MARS-adjusted estimate count
White	1,153,259	1,209,104	105,129	131,913
Black	93,378	105,315	29,547	37,124
Am Ind/Eskimo/Aleut	3,577	3,841	1,309	1,395
Asian/Pacific Islander	41,253	42,761	9,330	11,075
Other	61,608	---	30,906	---
Total	1,353,075	1,361,021	176,221	181,507

Sources: US Bureau of the Census, Decennial Census 1990 (STF1 and STF3), and 1990 MARS file

Persons for Whom Poverty Status is Determined Poverty status was determined for all persons except institutionalized persons, persons in military group quarters and in college dormitories, and unrelated individuals under 15 years old. These groups also were excluded from the denominator when calculating poverty rates.

Part Eight

Glossary

Acquired Immune Deficiency Syndrome (AIDS) Cases: The total number of cases diagnosed and reported to the AIDS Surveillance Program from the first cases in 1979 through January 1, 1994.

Adequacy of prenatal care: Adequacy of prenatal care is calculated from information reported by the birth hospital. The index of Adequacy of Prenatal Care (based on Kessner Index) has five categories (adequate, intermediate, inadequate, no prenatal care, and unknown) based on the trimester in which prenatal care began and the number of prenatal visits. The general classification scheme is:

Category	Trimester Care Began	Number of Visits
Adequate	1	9 or more
Intermediate	1	5-8
	2	5 or more
Inadequate	1	1-4
	2	1-4
	3	1 or more
No Prenatal Care	-	-
Unknown	unknown	unknown

The classification is adjusted for gestational age to allow for proper classification of premature infants.

Age-Specific Birth Rate: see Technical Notes.

Birth Rate: see age specific birth rate in Technical Notes.

Birthweight Categories: Birthweight is the weight of an infant recorded at the time of delivery.

Normal Birthweight (NBW): An infant's weight of 2,500 grams (5.5 pounds) or more

Low Birthweight (LBW): An infant's weight of less than 2,500 grams (5.5 pounds)

Very Low Birthweight (VLBW): An infant's weight of less than 1,500 grams (3.3 pounds)

Census Summary Tape Files 1 (STF1): see Technical Notes.

Census Summary Tape Files 3 (STF3): see Technical Notes.

Children under Age 18 with Both or Only Parent in the Labor Force: Children under age 18 living with one or both parents whose parent(s) is (are) in the labor force. A parent can be by birth, marriage, or adoption. Labor force participation of a parent not residing with the child is not acknowledged in this category.

Civilian Labor Force: see Labor Force.

Dropout: A student who did not return after summer vacation and was not enrolled at any time during the current school year. It is also someone who was enrolled sometime during the school year but was not enrolled on the last day of the current school year, and has neither graduated from high school nor completed a state- or district-approved educational program, nor transferred to another school, nor been temporarily absent due to suspension or verified illness.

Dropout Rates:

Annual Dropout Rate: The number of students in grades 9-12 who dropped out over the one-year period beginning on July 1 and ending on June 30 of the year specified, per 100 students.

Estimated Four-Year Dropout Rate: An estimate of the number of ninth graders who may not graduate, per 100 students. It shows the rate of 4 years of dropping out for a single graduating class.

Education Expenditures Per Pupil: Expenditures per pupil is equal to the current expenditures for public school programs (prekindergarten through 12th grade) divided by the average number of enrolled students.

Failure to Thrive (FTT): A diagnosis that describes infants and children who are severely undernourished or who show a persistent deviation from the normal growth curve. It is characterized by growth delay and often accompanied by increased illness, decreased activity, delays in cognitive development, poor school performance, and behavior and social problems.

Family: A family, as defined by the U.S. Bureau of the Census, consists of a householder and one or more other persons living in the same household who are related to the householder by birth, marriage, or adoption. All persons in a household who are related to the householder are regarded as members of his or her family. In particular, families with children under age 18 are family households with at least one person under age 18 (as reported in decennial censuses).

Gestational Age: The length of time a fetus is in utero before birth. In this publication, the clinical estimate of gestational age has been used for analysis. Clinical gestational age is determined by the attendant at birth or a physician providing postnatal care to the newborn. A normal gestational age is defined as delivery between the completion of the 37th and the 42nd week of pregnancy.

Group Quarters: All persons not living in households are classified by the Census Bureau as living in group quarters. The two categories of group quarters are (1) institutionalized persons and (2) other persons in group quarters such as rooming houses with ten or more unrelated persons, homes for the mentally retarded, or homes for the physically handicapped.

Head Start: Head Start is a federally funded program that provides comprehensive early childhood developmental, educational, health, nutritional, social and other services to primarily low-income preschool children and their families. By law, Head Start is targeted to low-income children with regulations specifying that 90% of the children enrolled in each program have family incomes at or below the official Federal poverty guideline (in FFY 1993 $14,350 for a family of four) or be receiving public assistance. Up to ten percent of the enrollees in a single program can be from families with incomes that exceed the poverty guideline. In addition, 10% of the slots in any program must be made available to serve children with disabilities. Once enrolled, children are allowed to remain in the program until kindergarten or first grade.

ICD-9: The International Classification of Diseases, 9th revision (ICD-9) is a system developed by the World Health Organization that assigns codes to disease entities with the intention of providing a universal scheme for classifying diseases and injuries.

Infant: A child less than one year (365 days) old.

Infant Mortality Rate: see Technical Notes.

Institutionalized Persons: Includes persons under formally authorized, supervised care or custody in institutions at the time of enumeration by the U.S. Bureau of the Census. Generally, institutionalized persons are restricted to the institutional buildings and grounds (or must have passes or escorts to leave) and thus have limited interaction with the surrounding community. Also, they are generally under the care of a trained staff who have responsibility for their safekeeping and supervision. Examples are; Prisons, Mental (Psychiatric) Hospitals, and Hospitals for the Physically Handicapped.

Labor Force: The labor force comprises all civilians (nonmilitary personnel) classified as employed or unemployed.

Live Birth: A live birth is defined as any infant who breathes or shows any other evidence of life (such as beating of the heart, pulsation of the umbilical code. or definite movement of voluntary muscles) after delivery.

Low Birthweight: see birth weight categories.

Married-Couple Family with Children under Age 18: A family in which the householder and his or her spouse are enumerated as members of the same household and who have a never-married child under age 18 who is the household head's natural child, stepchild, or adopted child.

Massachusetts Educational Assessment Program (MEAP): MEAP was established in 1985 with two purposes: to compare achievement among schools and districts and to provide curriculum and instructional guidance. Every other year, students in grades four, eight, and twelve are tested in five subjects: reading, mathematics, science, social studies, and writing. This assessment includes multiple choice and open-ended questions in each subject area.

Median Income of Families with Children under Age 18 (1989 Dollars): That family income at which fifty percent of all families with related children under age 18 have a higher income and fifty percent of all families with related children under age 18 have a lower income.

Median Income of Families with Children in Bottom Fifth (1989 Dollars): The median annual income for families with related children under age 18 with incomes in the bottom 20% of the income distribution among all families.

Medicaid: A state and federally funded medical insurance program for the financially needy, administered in Massachusetts by the Department of Public Welfare. All recipients of Aid to Families with Dependent Children and Supplemental Security Income (SSI) are automatically eligible for Medicaid. Others who apply and meet basic, categorical and financial eligibility requirements can receive Medicaid.

Modified Age, Race and Sex (MARS) 1990 File: see Technical Notes.

Neonatal Mortality Rate: see Technical Notes.

Normal Birthweight: see Birthweight Categories.

Outside Family: The combination of categories of persons who may be a householder or spouse under 18 years of age, a nonrelative, or persons in group quarters (non-institutionalized or other group settings)

Own Child: A never-married child under age 18 who is a son or daughter by birth, a stepchild, or an adopted child of the householder.

Own Child versus Related Child: An "own child" is a never-married child under age 18 who is the household head's natural child, stepchild, or adopted child. A "related child" is any child under age 18, regardless of marital status, who is related to the household head in any way; grandchildren, nieces and nephews would be included

under the latter definition. All "own children" are "related children," but not all "related children" are "own children."

Percent Children Living in Poverty: The percentage of children under 18 years of age living in families with income less than the designated threshold, defined by the U.S. Bureau of the Census, for poverty based on family size and age of family members.

Persons for Whom Poverty Status Is Determined: Poverty status, in the 1990 Decennial Census data, was determined for all persons except institutionalized persons, persons in military group quarters and in college dormitories, and unrelated individuals under 15 years old. These groups were also excluded from the denominator when calculating poverty rates.

Population under Age 18: The total population under age 18 as reported by the 1990 MARS (Modified Age, Race and Sex) file from the U.S. Bureau of the Census.

Public School Enrollment: Students enrolled in local public, independent vocational, academic regional, vocational-technical, and county agricultural school systems.

Related Children: Related children in a family includes own children and all other persons under 18 years of age in the household, regardless of marital status, who are related to the householder, except foster children and the spouse of the householder (see also **Own Child versus Related Child**).

Retained in Grade: Repeating the grade in which a student was enrolled the previous year.

Rural: U.S. Census Bureau-designated places of less than 2,500 persons.

Special Education: Special Education is mandated by Massachusetts special education law, Chapter 766, and Federal law, P.L. 94-142. Both laws mandate specially designed instruction and related services for students with disabilities who are unable to make effective progress in school. The state special education regulations set out nine general prototypes for special education programs:

> **502.1 Modified:** children receive special instruction in their regular classroom.
>
> **502.2 Integrated:** children leave the regular classroom for no more than 25% of the school week for their special instruction.
>
> **502.3 25%-60%:** children spend from 25% to 60% of the school week outside the regular classroom.
>
> **502.4 Substantially Separate:** children who spend almost the whole school week in a classroom taught by a special teacher.

502.4i Separate Facility: children who are placed in a substantially separate program outside of a regular public education facility.

502.5 Day School: children who attend private day schools for special needs pupils.

502.6 Residential: private special needs schools where children live and attend class.

502.7 Home or Hospital: when pupils are sick at home or in the hospital, the school district assigns a tutor to give them private instruction.

502.8 Pre-School: this prototype is designed for three and four year olds with special needs.

Unemployed persons: All civilians who had no employment during the survey week, were available to work (except for temporary illness) and had made specific efforts to find employment some time during the prior four weeks. Persons who were waiting to be recalled to a job from which they have been laid off or waiting to report to a new job within 30 days may also be classified as unemployed, although they may not be looking for work.

Unemployment Rate: The unemployment rate represents the number unemployed as a percent of the civilian labor force.

Ungraded Students (in Public Schools)(UG): Students who are primarily in special needs or alternative programs. Ungraded students do not constitute the total special needs population.

Urban: According to the U.S. Bureau of the Census, "urban areas" comprise all territory, population, and housing units in places of 2,500 or more persons.

Very Low Birthweight: see Birthweight Categories.

The tables in Appendix A provide more detailed population counts for age, race and ethnicity than the tables or graphs presented previously in this report. These numbers were used throughout this report as denominators when calculating age specific and race/ethnicity rates and percentages of child status indicators. The primary source of population data for Massachusetts was the U.S. Bureau of the Census 1990 Modified Age, Race, and Sex (MARS) file.

The first table provides population totals for each age, infants to children less than twenty years old and each race. Hispanic ethnicity is included within each race. These numbers can be used when analyzing data that does not break out persons of Hispanic origin, such as socioeconomic characteristics obtained from Decennial Census Summary Tape files.

The second table provides counts by each age, as in table 1, and race categories with Hispanic ethnicity separated from each of race group so that the categories are: white non-Hispanic, black non-Hispanic, Asian non-Hispanic, American Indian non-Hispanic, and Hispanic. These numbers are used as denominators when calculating rates and percentages for data that has mutually exclusive race and ethnicity categories.

The third table compares 1990 Decennial Census data with the 1990 Modified Age, Race, and Sex (MARS) file data. For Census data, Summary Tape File 1 (STF1) was used. This file contains the 100% component of a decennial census questions that were asked of all persons and housing units.

Table 1: Population Counts for Massachusetts (Hispanics included within Races)

Age (Yrs)	Total	White		Black		Asian		Am.Indian	
	N	N	row %	N	row %	N	row %	N	row %
<1	90,143	79,009	87.6	7,851	8.7	3,032	3.4	251	0.3
1	85,657	75,358	88.0	7,143	8.3	2,924	3.4	232	0.3
2	83,722	73,799	88.1	6,985	8.3	2,717	3.2	221	0.3
3	80,733	71,311	88.3	6,530	8.1	2,675	3.3	217	0.3
4	81,094	71,730	88.5	6,494	8.0	2,653	3.3	217	0.3
5	78,407	69,630	88.8	5,955	7.6	2,604	3.3	218	0.3
6	75,793	67,432	89.0	5,622	7.4	2,526	3.3	213	0.3
7	75,780	67,318	88.8	5,739	7.6	2,498	3.3	225	0.3
8	71,834	63,801	88.8	5,433	7.6	2,392	3.3	208	0.3
9	74,807	66,327	88.7	5,748	7.7	2,531	3.4	201	0.3
10	73,661	65,722	89.2	5,529	7.5	2,188	3.0	222	0.3
11	70,508	63,015	89.4	5,323	7.5	1,952	2.8	218	0.3
12	68,575	61,300	89.4	5,207	7.6	1,875	2.7	193	0.3
13	67,098	59,944	89.3	5,080	7.6	1,863	2.8	211	0.3
14	67,175	60,020	89.3	5,003	7.4	1,965	2.9	187	0.3
15	69,400	62,101	89.5	5,107	7.4	1,994	2.9	198	0.3
16	70,266	62,920	89.5	5,061	7.2	2,092	3.0	193	0.3
17	76,368	68,367	89.5	5,505	7.2	2,280	3.0	216	0.3
Total <18	1,361,021	1,209,104	88.8	105,315	7.7	42,761	3.1	3,841	0.3
18	90,970	81,116	89.2	6,294	6.9	3,340	3.7	220	0.2
19	109,026	97,252	89.2	7,255	6.7	4,241	3.9	278	0.3
Total <20	1,561,017	1,387,472	88.9	118,864	7.6	50,342	3.2	4,339	0.3

Source: US Bureau of the Census, 1990 MARS file

NOTE: The number of children less than one year old (90,143) is the number of children less than one year old at the time the 1990 census estimates were conducted and is somewhat lower than the number of children born to Massachusetts residents that year (92,461). See the Technical notes for a more complete explanation of the Census data.

Table 2: Population Counts for Massachusetts (Hispanic Ethnicity Separated from Race Groups)

	Total	White *		Black *		Asian *		Am.Indian *		Hispanic	
Age (Yrs)	N	N	row %	N	row %	N	row %	N	row %	N	row %
<1	90,143	72,454	80.4	6,336	7.0	2,896	3.2	194	0.2	8,263	9.2
1	85,657	69,272	80.9	5,814	6.8	2,810	3.3	164	0.2	7,597	8.9
2	83,722	68,148	81.4	5,672	6.8	2,623	3.1	154	0.2	7,125	8.5
3	80,733	66,074	81.8	5,329	6.6	2,587	3.2	164	0.2	6,579	8.1
4	81,094	66,501	82.0	5,265	6.5	2,558	3.2	169	0.2	6,601	8.1
5	78,407	64,733	82.6	4,887	6.2	2,506	3.2	169	0.2	6,112	7.8
6	75,793	62,584	82.6	4,600	6.1	2,435	3.2	151	0.2	6,023	7.9
7	75,780	62,531	82.5	4,683	6.2	2,397	3.2	171	0.2	5,998	7.9
8	71,834	59,261	82.5	4,439	6.2	2,301	3.2	159	0.2	5,674	7.9
9	74,807	61,613	82.4	4,682	6.3	2,426	3.2	154	0.2	5,932	7.9
10	73,661	60,988	82.8	4,548	6.2	2,084	2.8	177	0.2	5,864	8.0
11	70,508	58,671	83.2	4,374	6.2	1,868	2.6	170	0.2	5,425	7.7
12	68,575	57,015	83.1	4,271	6.2	1,786	2.6	152	0.2	5,351	7.8
13	67,098	55,767	83.1	4,207	6.3	1,781	2.7	164	0.2	5,179	7.7
14	67,175	55,881	83.2	4,093	6.1	1,889	2.8	149	0.2	5,163	7.7
15	69,400	58,102	83.7	4,231	6.1	1,902	2.7	154	0.2	5,011	7.2
16	70,266	58,949	83.9	4,219	6.0	1,981	2.8	153	0.2	4,964	7.1
17	76,368	64,210	84.1	4,586	6.0	2,192	2.9	182	0.2	5,198	6.8
<18 Total	1,361,021	1,122,754	82.5	86,236	6.3	41,022	3.0	2,950	0.2	108,059	7.9
18	90,970	76,357	83.9	5,367	5.9	3,189	3.5	181	0.2	5,876	6.5
19	109,026	91,661	84.1	6,184	5.7	4,065	3.7	226	0.2	6,890	6.3
<20 Total	1,561,017	1,290,772	82.7	97,787	6.3	48,276	3.1	3,357	0.2	120,825	7.7

* Non-Hispanic

Source: US Bureau of the Census, 1990 MARS file

Table 3: Comparison of Population Counts for Massachusetts Using 1990 Census Summary Tape File 1 (STF1) and 1990 Modified Age, Race, and Sex (MARS) File

Age (Yrs)	STF1	MARS	Percent Change
<1	73,435	90,143	22.8
1	90,459	85,657	-5.3
2	85,672	83,722	-2.3
3	81,723	80,733	-1.2
4	81,184	81,094	-0.1
5	79,623	78,407	-1.5
6	75,856	75,793	-0.1
7	75,730	75,780	0.1
8	72,302	71,834	-0.6
9	74,524	74,807	0.4
10	74,050	73,661	-0.5
11	70,761	70,508	-0.4
12	69,455	68,575	-1.3
13	67,008	67,098	0.1
14	66,819	67,175	0.5
15	69,178	69,400	0.3
16	70,329	70,266	-0.1
17	74,967	76,368	1.9
<18 Total	1,353,075	1,361,021	0.6
18	88,954	90,970	2.3
19	106,506	109,026	2.4
<20 Total	1,548,535	1,561,017	0.8

* Non-Hispanic

Source: US Bureau of the Census, Decennial Census 1990 (STF1) and 1990 MARS file

Northeast Region Consumer Price Index - Urban (CPI-U): 1985 - 1993

Year	1985	1986	1987	1988	1989	1990	1991	1992	1993
CPI-U	108.4	111.1	116.0	121.8	128.6	136.3	142.5	147.3	151.4

Source: U.S. Bureau of Labor Statistics

The Northeast Region Consumer Price Index (CPI-U) was used to adjust annual program funding levels for inflation. The CPI-U is calculated each year by the U.S. Bureau of Labor Statistics. Often referred to as the "cost of living index," the CPI-U is the most commonly used measure of inflation. The index measures the average change in prices in 365 categories of goods and services bought by the average consumer on a regular basis, including food, clothing, shelter, fuel, transportation fares, medical services, drugs etc.. The Northeast region includes Pennsylvania, New Jersey, New York, Connecticut, Rhode Island, Massachusetts, New Hampshire, Vermont and Maine.

The following formula was used to adjust to 1993 dollars:

$$\frac{\text{CPI-U 1993}}{\text{CPI-U of base year}} \times \text{unadjusted base year \$} = \text{funds adjusted to 1993 dollars}$$

Percent of AFDC Caseload by Number of Years Receiving Aid within Race/Ethnicity Massachusetts: September, 1993

	Race/Ethnicity											
	Total		White*		Black*		Hispanic		Asian*		American Indian*	
Years on AFDC	#	%	#	%	#	%	#	%	#	%	#	%
< 1 year	16,886	14.9	9,301	15.6	2,447	12.4	4,260	14.7	818	16.9	60	19.2
1-3 years	34,102	30.0	18,479	30.9	5,413	27.4	8,514	29.3	1,586	32.8	110	35.3
3-5 years	33,352	29.3	17,283	28.9	6,035	30.6	8,462	29.1	1,467	30.3	105	33.7
> 5 years	29,389	25.8	14,713	24.6	5,829	29.6	7,847	27.0	963	19.9	37	11.9
Total	113,729	100	59,776	100	19,724	100	29,083	100	4,834	100	312	100

Source: Massachusetts Department of Public Welfare

* non-Hispanic
Percents may not sum to 100 due to rounding.
AFCD is the acronym for Aid to Families with Dependent Children.

Public School Enrollment by Grade, Massachusetts: 1980-1992

Grade	1980	1984	1986	1988	1990	1991	1992	% Change 80-92
PK	1,942	2,849	3,715	6,017	7,567	9,491	10,722	452.1%
K	61,535	61,229	66,604	69,572	73,481	72,974	75,159	22.1%
1	63,287	63,007	67,365	70,861	73,231	74,646	74,381	17.5%
2	61,878	57,957	60,688	64,886	67,497	69,876	71,848	16.1%
3	66,020	56,056	58,125	62,404	66,331	66,903	69,175	4.8%
4	73,001	56,412	57,245	60,345	64,246	65,960	66,822	-8.5%
5	77,517	58,211	55,973	58,821	62,465	64,107	65,965	-14.9%
6	78,173	60,623	57,164	58,169	60,813	62,480	64,155	-17.9%
Total PK-6	483,353	416,344	426,879	451,075	475,631	486,437	498,227	3.1%
7	80,138	66,929	60,242	58,143	60,284	61,354	62,981	-21.4%
8	81,727	72,480	61,335	58,154	58,818	59,263	60,702	-25.7%
Total 7-8	161,865	139,409	121,577	116,297	119,102	120,617	123,683	-23.6%
9	87,182	80,084	70,217	63,570	60,803	62,699	63,334	-27.4%
10	87,685	75,117	70,865	61,187	59,154	58,451	59,632	-32.0%
11	85,459	70,411	69,630	60,261	56,639	55,551	54,908	-35.7%
12	79,678	67,799	63,824	60,640	53,484	53,464	52,425	-34.2%
Total 9-12	340,004	293,411	274,536	245,658	230,080	230,165	230,299	-32.3%
UG	11,333	10,660	11,105	10,478	9,501	8,936	7,739	-31.7%
Total PK-12	996,555	859,824	834,097	823,508	834,314	846,155	859,948	-13.7%
13/PG	4,145	1,987	1,528	1,569	1,694	1,864	1,671	-59.7%
14	1,060	629	335	332	375	349	364	-65.7%
Total 13-14	5,205	2,616	1,863	1,901	2,069	2,213	2,035	-60.9%
Total PK-14	1,001,760	862,440	835,960	825,409	836,383	848,368	861,983	-14.0%

Source: Massachusetts Department of Education, Office of Planning, Research and Evaluation
Note: PK= Pre-kindergarten, K= Kindergarten, UG= Ungraded, PG= Post=Graduate